

The First and Second Part
OF
COUNSEL and ADVICE
TO ALL
BUILDERS:
FOR

The choice of their SURVEYORS,
Clerks of their Works, Bricklayers,
Masons, Carpenters, and other
Workmen therein concerned.

AS ALSO

In respect of their Works, Materials,
and Rates thereof.

Written by Sr. *Balthazar Gerbier*, Knight.

L O N D O N,

Printed by *Tho. Mabb*, for *Tho. Heath* at the
Globe within Ludgate, 1664.

THE LAW AND EQUITY
OF
COUNSEL AND ADVICE
TO ALL
BUILDERS

The choice of their Surveyors
Clerks of their Works, Builders,
Masons, Carpenters, and others
concerned.



AS ALSO
In respect of their Works, Materials,
and Places thereof.

Written by Sir Ralph Gawvis, Knight.

LONDON,
Printed by Tho. Mabb, for Tho. Newberry,
Close within Ludgate, 1664.

A Brief
DISCOURSE

Concerning the
Three chief Principles
O F
Magnificent Building.

Viz. { Solidity,
Conveniency,
and
Ornament.

By *Sr. Balthazar Gerbier, Knight.*

L O N D O N,
Printed by *Tho. Mabb*, for *Tho. Heath* at the
Globe within Ludgate, 1 6 6 4.

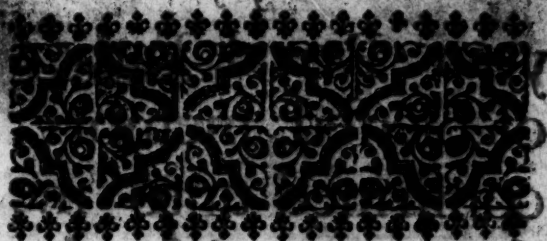
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Sasannah Nelson

By St. Andrew's Society, Knight.

L O N D O N

Printed by J. Smith, for the Proprietors of the
 Glasgow and London Press, 1844.



TO THE
KINGS
MOST

Excellent Majesty.

May it please your Sacred Majesty



Y place of Ma-
ster of the
Ceremonies
(which the King
A 2 your

The Epistle

your Royal Father
of blessed memory,
confirmed unto me
during my life, by
the Great Seale of
England,) is to intro-
duce Forreign Prin-
ces or their publick
Representatives to
your Sacred Pre-
sence. And in re-
gard the Place of
Surveyor Generall
was.

Dedicatory.

was also intended to
me (after late *Inigo*
Jones) I doe make
bold to introduce
the three Capitall
Principles of good
Building to your Sa-
cred Majesty, who
hath seen more state-
ly Palaces and Build-
ings, than all your
Ancestors, and may
be a Pattern to all

A 3 fu-

The Epistle

future Posterity, by
Building of your
own Palace worthy
your Self, and place-
ing it as the *Italians*
for their health, de-
light, and conveni-
cy (as well as Solidi-
ty and Ornament,) *La Mattina alli Monti,*
la Sera alli Fonti, ac-
cording to which
the main body of
your

Dedicatory.

your Royal Palace
may be set on the
side of Saint James's
Park, and the Gar-
dens along the Ri-
ver.

If the Book af-
foards any thing
worthy your Sacred
Majesties further sa-
tisfaction, I have
obtained my end,
and done the Du-

The Epistle, &c.

ty intended by

Your Sacred Majesties

Most humble, most obedient, most

Loyal Subject and most zealous

Servant Balthazar Gerbier

D'ouilly Knight.

TO



TO THE
LORDS
AND
COMMONS
Asssembled in
PARLIAMENT.

May it please your Honours :



I being lately re-
ported that your
Honours have
deliberated to have the
Streets

The Epistle

Streets made clean, to enlarge some of them, and to Build a Sumptuous Gate at Temple-Barr; I thought it my Duty to Present this small Discourse of the three Principals of good Building, and withall a Printed Paper concerning the Cleaning of the Streets, the Levelling the Valley at Fleet-Bridge, with Fleet-Street and Cheapside,

Dedicatory.

Cheapside, and the making of a Sumptuous Gate at Temple-Barr, whereof a Draught hath been presented to his Sacred Majesty, and is ready also to be produced to your Honours upon Command, with all the Devotion of

Your Honours

most humble and most

obedient Servant

B. Gerbier Douvilly Knight.

History.

Chaplain, and the
ing of a Champion, Gate
at Temple Bar, whereof
a Throng hath been pre-
sented to his Sacred Ma-
jesty, and is ready also to
be produced to your Ho-
nours upon Command, with
all the Direction of

Your Honours

most humble and most

obedient Servant

Edmund Dorell Knight.

TO HIS
Royal Highnesse the
Duke of Yorke.

THe fore-runner of this
Discourse, was printed
and dedicated to the King &
to the Parliament, the Chief
Builders of a State; And
though your Royal Highness
hath not as yet thought good
to Build, it may be that when
your Surintendents of Build-
ings shal (though they should
not need any of those Annota-
tions, nor the rates of Materi-
als, they will approve that
a Work-

*Workmen may have this little
Book in their Pockets, that
they may not be ignorant that
their pay-masters will look to
have works performed accor-
ding to a good Method, which
(besides the paying all duty
and respects due to such an
Eminent Royal Prince) is the
scope of,*

*Your Royal Highnesse
Most humble, most Obedi-
ent, most Faithful and most
Zealous Servant,*

Balthazar Gerbier.

To his Highnesse, Prince
R U P E R T,

Prince Palatine of the Rhine, Duke
of Bavaria, and Duke of Cum-
berland, &c.

YOur Highnesse (like great
Emperours of Germany,
and other Princes doth
not onely affect all Arts and Sci-
ence, but is so eminent therein,
as to trace them thoroughly
with his Princely hands) and
therefore needs no formal
Crown thereon, since they
prove to be the Crown to all o-
thers, which argueth the match-
lesse capacity of your Highness:
who will not be displeased in
the offer of this little Discourse,
on a grosse matter, which not-
withstanding if well made use

of, may serve to compose a Palace so charming, as to hinder furious *Mars* himself to lay his destructive hands thereon; since those that bear the name of *Goiz* were not permitted by great *Gustavus Adolphus* to touch *Muniken*, though it was the habitation of the Duke of *Bavaria*, no friend to *le-bow* party, as it was then called.

But that I may not by too many lines entrench, neither on your Highnesse precious time nor patience; I shall end this duty, with my zealous wishes for your Highnesses long Life and Prosperity, being

Your Highnesse

Most humble, and most

Obedient Servants,

B. Gerbier.

To the most Reverend Father in
God, WILLIAM Lord
Arch Bishop of CANTER-
BURY his Grace, Primate
and Metropolitan over all
England.

HAVING observed, that your
Grace doth Rebuild, what
distracted times hath demo-
lished: I thought it fit to present this
little Treatise to your Graces view;
it doth proceed on the indisputable
prescription, according unto which
Solomons Temple was Built, and
certainly, My Lord, it ought to pass
for the best, nor have the Heathens,
Grecians and Romans, omitted
the same in their compleatest
Structures, both for length, width
and height, ordering each part
thereof, proper to its particular use,
shunning all improprieties; further-
more it is certain, that many of
a 3 them

them have affected to observe in
the Dimensions of their Edifices,
the 60. Cubits in length, 20. in
breadth, and 30. in height of So-
lomons Temple, their windows ac-
cordingly, allowing a convenient
height unto them, but most of their
Magnificent Stair-cases with lights
from above. May the blessings
thence continually attend your
Grace that after his Building up of
Terefter Seats, and the propagating
of Temples in bodies of flesh, Your
Grace may appear as one of the Poli-
lished corners of that Temple,
whereof that of Solomons Bul-
ding Was a Tipe; The wishes of,

Your Graces,

Zealous and most

humble Servant,

Balthazar Gerbier.

To the Right Honourable
EDWARD *Earl of*
CLARENDON *Lord*
High Chancellour of
England, &c.

I Have thought it my duty to offer to your Lordship (as I do to others) a Counsel and Advice, how your builders may produce, according unto the nature of men, and quality of materials to be had on the place, without seeking in other parts (at needlesse expence) what with ease and satisfaction may be had at home, if men can affect what is most proper, and be minded to take the best out of that which Antient and Modern

men (skilful in building) have
practised, according unto most
infallible Rules; mine shall ever
be to observe the Werthies of
the Age; and consequently to
make good, that I am,

Your Lordships

Zealous and most

humble Servant

B. Gerbier.

T O

The Right Honourable

the Earle of

Southampton,

Lord High Treasurer of

England, &c.

Sould not an advice to all
Builders be laid at your Lord-
ships Threshold; It were a
matter to impose as a charge upon
the Author of such a Treatise,
though he were blinde, if he had
but heard that your Lordship (as
Trajan the Emperor) leads the way
not onely to particular, but to Pub-
lique Builders; May your Lord-
ship

ship have therein as much satisfaction and divertisement, as any of the great succesful Builders ever had; and may your Trustees therefore proceed according to the best Method, since the well performing of a work, contributes to the true content of the Builders, and makes him the sooner forget both his Charge and Cares: May likewise your Lordship in all your other Affairs, both Publick and Domestick, have entire satisfaction, which are the zealous wishes of,

Your Lordships

Zealous and most

humble Servant,

Balthazar Gerbier.

TO
The Right Honourable

JOHN Lord ROBERTS.

Baron of Truro,

Lord Privy Seal.

THe Author of this Counsellor
shall not be a second *Ana-*
chete, for it meddles not
with matter of State; and though it
were his approved profession, thanks
be to God, he lives in an Age as the
Knights *de la Banda*, made by King
Alphonso; who were not only per-
mitted, but obliged to speak truth.

Nor doth it presume to offer to a
Person so eminent (and as learned
in the Law as *Lycurgus* among the
Lacedemonians) a wax Light to the
Sun; it neither speaks in those lear-
ned Tongues, which your Lordship
hath in great Perfection; Its Lan-
guage being onely the Phrase of Me-
chanicks

B. G. G. G.

chanicks though some of them of-
ten presume to quote the words in
Ecclesiasticus, chap. 38. vers. 32. & 34.
*Without these cannot a City be inhabi-
ted, &c. But they will maintain the
State of the World, and all their desire
is the work of their craft. I will ever
study the true meaning of a French
saying, viz. la plus grande finesse est de
w'en avoir point; As in this offering
I have no particular one, since its
duty to consider your Lordship as
one of the Worthies, who doth re-
flect on things as necessary to the
Publick and to a Family, as neat
and convenient cloaths to a parti-
cular body; and that I am confi-
dent your Lordship takes me to be
a somebody, and*

Your Lordships

Zealous and most

Humble Servant,

B. Gerbier.

To the Duke of
BUCKINGHAM

His Grace.

THE saying, Vivat memoria Buckinghamii, could not be made good by me if this little Counsel and Advice, did not pay its respects to your Grace, whose matchless Aspect is that Glass which a French Author called Le miroir qui ne flatte point, for what credence would Quintus Curtius his representing Alexander have had, if he had mist his mark? and what would have been
be-

*believed of Ulysses without a
true Homer ? of Alcibiades
without Xenophon; of Cir-
us without Chilo; of Pyrrhus
(King of the Epirotes)
without the Cronicles of Her-
micles; of the great Scipio
Africanus, without the de-
cades of Titus Livius; of
Trajanus without Plutarch;
of Nerva and Antoninus;
Pius without Phocion the
Greek, of the great courage
of Julius Cæsar; and the
Magnanimite of Pompey
without Lucan, and of the
twelve Cæsar, without Sue-
tonius ? Your Aspects My
Lord, speaks indeed that
which*

which no memory can fall
short of; And your Heroick
minde affecting that which is
the Purest, speaks Bucking-
ham in perfection; your Grace
can by a sublime quality sepa-
rate Spiritual from Terrestri-
al, and without venturing a
stock to fetch Aurum Hori-
sontalis from the East In-
dies, or with me to the West,
the most concocted and most
pure from elDorado, which if
it had a speaking quality,
your Grace would hear its
Hessian Alembick sing the
Gold its joy, for having ap-
proved it self the more pure
by its often passing through a
Fur-

Furnace : O that all well
meaning creatures, and branded
by black Calumniators
had like fortune, and were put
to the examen of men, as Re-
mon-Lue, to el Dorado ; I
would go without being inrol-
led among Herefiastick Seek-
ers, only in that Number, who
seek the Worthies to manifest
unto them, how much I am
theirs ; and consequently,

Your Graces

Zealous and most

humble Servant,

B. Gerbier.

To the Duke of ALBEMARLE
his Grace, General of
his Majestie, Forces, and
Master of the Horse, &c.

ITs true My Lord, that to a per-
son as *Numa Pompilius*, who ho-
noured the Church, a Treatise
concerning Divine matters were
most proper. To one as *Marcellus*
who pitied those that were vanquishd
of compassion. To one as *Cesar*,
(who forgave his Enemies) of Cle-
mency. To one as *Octavian* (be-
loved of the People) of true Love.
To one as *Alexander* (who gave to
all) of Liberality. To one, as *Hector*
(Valiant in War) of Heroick feats.
And what more proper to one as
Hercules of *Thebes*, *Ulysses* of *Greece*,
Phyrrhus King of *Epirots*, excellent
in the invention of Warlike Works,
Catulus, *Titus*, *Marcus*, *Aurelius*, *Cræ-*
sus

his King of Lydia, (a just man) true,
magnanimous, tender, couragious,
a *Mevenas* to wise men, and the
great enemy of those that were Ig-
norant. But that malicious persons
who cannot endure any but them-
selves, should passe for persons en-
dued with some usefull quality; I
do make therefore bold to present,
though a Treatise concerning Me-
chanicks to your Graces view, with
the Humble Tender of the respects
due to a second *Perseus*, who next to
the Almightyes arm hath delivered
this *Albion Andromeda* from a Mon-
ster, which deprived me also from a
publick employement, during the
space of seaventeen years.

Your Graces

Zelous, and most

Humble Servant,

Balthazar Gerbier.

To the Right Honourable
the Lord Marquess of
Winchester.

YOur Henfield is well seated
Palace with a Wood at its back,
like a Mantle about a coat of
Armes, which doth defend it from the
North west windes; argueth, that it is
good to be there, as it proves a daily ease
to Travellers, who by four miles at once,
shorten the tediousness of a too long jour-
ney; for I doe perswade myself, to heare
many of them say, good cheer, its but
four miles to Henfield Seat, and thence
but so much more to a good Town, to re-
fresh and rest.

The present satisfaction of that seat,
no doubt (My Lord) diminisheth the
grief of the losse of Basing, and that
Dolbier is no more (not a Prince of the
Air, save the carcass of his head on a
Pole) drawing lines of circumvallation
above your Seats, but that there is now

(in stead of destroying powers) a blessed Prince, to whom may be justly applied, Post Nubila Phæbus, whose quickning rayes do now promise Peace and Plenty.

May there never more such dark clouds appear as might be able to cause stormes to fall, and lay to the ground such an ornament to a Land, as Basing was. Yet if in any of your Lordships Seats works may be necessary, this little forerunner of a more great one, may be as acceptable as it is most respectfully tendered by me,

Your Lordships

Zealous and most

humble Servant.

Balthazar Gerbier.

To the Right Honourable
the Lord Marquess of
Worcester, &c.

YOur known most Excel-
lent parts in many won-
derous operations which
a publick *Genius* can be capa-
ble of and which renders this
Age more notorious, than that
wherein *Pyrocles* ; who Inven-
ted the Art of the fire-lock, that
of *Prothee* of compleat Armor,
that of *Phanice* of the Helmet,
the *Lacedemonians*, the Lance
and sword, the Combats at Sea
and Land, by the *Africans* and
Thessalonians, and what can be
said of *Archimedes*, and the
High German Lord *George Agri-
cola*, who hath left number of
designes

designes most compleatly Engraven; that demonstrates how the great Element of water, can be easily drawn, an excessive and almost incredible height above its Centre; so that Collonel *Rushner* and his associates in *Holland*, their proposals concerning Waterworks, were not to be questioned; all which to you my Lord, is so familiar, as that whatsoever Art can be treated of, cannot be amiss to your Test.

Its therefore that this is offered to your hands, it being as a little fragment of former exercises intended some years past, in a royal Academy, and might have succeeded, had it not been attempted in a most destructive time, when at one of the publick lectures (which as all the other were *gratis*) a world
of

of People repaired to *Bednal-Green*, to destroy to the very foundation of it; partly on pretence that it was a receptacle of Royalists; and partly that the string of an Apollonian-like Harp, did not sound pleasing to their ears, *down with all Arts and Sciences*, and let but *Paris* in France, *Salamanca* in Spain and *Padua* in Italy have such a prerogative.

In fine, in case of like struggling against wind and stream, a good swimmer (though a second fabulous *Leander* who sinks for Love) must give over; thus an infinite number of eminent *Verticose* have found to be true, and no doubt your Lordship is of the number, that judgeth by experience, yet cannot be discouraged; for Art and knowledge finds contentment

in its self, it being a constant
good, to all those who do pro-
fess it; my profession (my
Lord) shall be as long as breath
in me, to honour all those that
follow what good is, and conse-
quently that with offer of this
little present, I am

Your Lordships

Zealous and most

humble Servant

B. Gerbier.

To the Right Honourable
HENRY Lord Marquesse
OF
DORCESTER.

One of his Majesties most Honourable Privy Council, &c.

Here is Presented to Your Lordships View, a Summary discourse wherein Men affecting Building are concerned; it cannot be improper to his view, who sheweth the effects of his liberal Heart, as a second Gelia, when he not onely did erect buildings for publick use, gave privately, and openly, but kept Officers at the gates of the City, to invite all in-commers to take refreshment in his Palace, which did answer the truth of the saying, That as knowledge in the hands of the Common is silver, in those of a noble person it is gold. And that he doth really possess its true (and no imaginary

ginary) powder of production, That of
Hermes Trismegistos, that Aurum
Potabile, which will serve to open
Heavens gate.

And who can tell, My Lord, but that
Ovid had more then human thoughts by
a golden Schoare, whereby a Divine bliss
might make way to a pure soul?

To such a one, My Lord, (who by a per-
mitted comparison may be said to have
healing under his wings,) is offered the
production of a person that means well,
when a Mecenas to all vertues (and so
high born, as directly descended from
that Noble Stem of Shrewsbury) will
favourably cast his eyes on an humble
sensitive,

Your Lordships

Zealous and most

humble Servant,

Fal'thazar Gerbier.

The Right Honourable

The Earle of

Manchester,

*Lord Chamberlain of his
Majesties Household, &c.*

COnsidering that the Lord Chamberlain by daily experience, findes what is most needfull in the Palace of a Sovereign, that a Person so indued, as your Lordship can best judge thereof, that all men of parts endeavour the performing of their task, the better under a good Commander, who also is of Noble extraction, whose Mildenesse accompanieth his Prudence

Prudence, which doth patiently
passe by some Errors that may be
committed by men, who cannot
challenge infallibility in this
world; I thought fit to pay this
duty to your Lordship, by pre-
senting the *Counsell and Advise to*
all Builders, to your hands; With
the Zealous professions of an old
known Royal Sworn Servant, by
two of your Lordships Prede-
cessors and,

Your Lordships

most Humble

Zealous Servant,

B. Gerbier.

T O
The Right Honourable
The Earle of
Northumberland,
One of his Majesties most
Honourable Privy Councel, &c.

DUring your Lordships being Admiral of the King of Blessed memory, his Royal Fleet at Sea, I did not fail from my publick Residency at Bruxels, to present weekly to your Lordships view (as to all others of his Majesties most Honourable Privy Council) what in duty bound, in reference to the Royal Service and Respects to so great a Commander on the Ocean, wherein the Brittain Kings their Jurisdiction extends as far as the deviding of the Seas neer Rochel.

From this deep Ocean my Vessel being
withdrawn

withdrawn, I do with a fraught of words
concerning Materials, steer to Petworth:
And if my little Treatise (though like a
Mouse gets no admittance up stairs, it
may to that famous Stable built (as I
bear) as a magnificent one ought to be;
No Horse in a double row, neither the pas-
sage too broad, nor the Seeling too high,
since otherways that which is the main
pleasing object (the Horse) is as to seek.

Your Lordship will finde in this Trea-
tise, what kinde of Stable Prince Tho-
mas of Savoy did Build; Its true where
Marble is to be had at easys rate, but where
Coper is very dear; That I may not abuse
that which is due to a person of his Birth
and condition, I shall onely to the offer of
this little Advice to Builders; joyn the
humble respects of,

Your Lordships

Most humble,

Zealous Servant,

Balthazar Gerbier.

To the Right Honourable

The Earle of

BEDFORD.

Here is an offering not improper to the most noble Successor of the Author of the *Piazza*, whereby this great Metropolitan of *Albion* is beautified as the firmament is by the Sun among the other Starrs: Nor is your Lordships *Alexander*-like receptacle, for all the generation of *Bucefalls*, a less Ornament, though inferiour to that of Prince *Thomas* of *Savoy*, which was built of White Marble within, the Pillars Copper, Figures, the Manger and Rack of the same Mettal, to perpetuate his Name somewhat longer among Rationals, then Brick could have done, yet *Artbemisia* had

had more reason to prefer before a glorious *Mosole* her self, for a receptacle of sacred Ashes, which might remain longer in the memory of men, and of that Sex which talkes most. I shall My Lord, endeavour to speak, not onely in all the Languages which a true Master of Ceremonies ought to have, but of that of the Heart, your Lordships praise, and that I am,

Your Lordships

most humble

Zealous Servant,

B. Gerbier.

TO
The Right Honourable
the Earle of
LEICESTER, &c.

IT May be, that at the first sight of an
Epistle, with Your Lordships name,
will be expected a Treatise concerning
the most Sublime parts of the Metaphi-
sicks, in reference to your High Genius,
or a Treatise of State-Policy, Embassa-
ges and Negotiations in the Courts of Fo-
reign Princes, wherein your Lordships
carriage hath justly deserved the re-
spects of those, who in that time were par-
ticularly acquainted therewith, as (My
Lord) I was, being then honoured by the
late King of blessed memory, with a Pub-
lick employment; but (My Lord) it be-
ing my scope onely at this time, in the
putting forth this small discourse, to
leave some advice to Builders, I must
rather

rather resolve to suffer in the opinion of
those Great Men, whose Capacity makes
them write on matters answerable to their
Great Parts (and therewith to make
Addresse to your Lordships) then commit
the paying this Duty to a Person who
hath enricht with a Noble Building, one
part of this Metropolitan, and thereby
encreased the number of those who have
endeavoured to Build better, then those of
past Ages; may Your Lordship in this
have all Satisfaction and Contentment
according unto the wishes of,

Your Lordships

most humble

Zealous Servant,

B. Gerbier.

T O
The Right Honourable
T H E
Earle of Denbigh.

Y Our Lordship, who during the time of your extraordinary Embassage in *Italy*, hath not only seen the best Buildings, and knoweth how to order what is best convenient, needs no advice, since your Lordships experiences in Building hath already proved it; yet my respects in the offering to your hands a little Manual, for a Testimony, that during my travels, I did not attach my Eyes onely on the generality of Objects, but did exactly consider some particulars worthy of note, (will not as I do humbly conceive)

ceive) be rejected, as being contrary to the disposition of Persons of your high Descent (that of *Habsburg*) who have not been abused in their Education, though it happens but too much; Neither is it natural to all those, which are born under one Constellation, to have like Influences; since it hapned that when *Charles* the Fifth, Emperour of *Germany*, had his great genius elevated in Imperial thoughts, at the same moment he was Crowned, and a Baker his Nurser's Son, born in the very same moment as *Charles* the Emperour was, who was observed only to be merry among his Friends, at the same instant of the said Emperours Coronation. Wherefore reflecting upon your Noble Birth, My Lord, my confidence to offer such a little
(over)

and

and Inconsiderable Piece of
Work, cannot be lookt upon as
unseasonable : My Mark being
Respect, and the Effect my Du-
ty ; and so I do humbly beseech
you, my Lord, to let it pass, for
though to so great an experience
as that of your Lordship, it should
signifie nothing New ; It may
nevertheless, by your Lordships
Favour, finde a place where
things are made good, and so
may prove as pleasing, as your
Lordships Paradise-like-Garden
at *Neenem*, where an Euphrates
flows : And truly, my Lord, a
Ground without such Waters, is
as a fair Ladies Chamber with-
out a large and clear Looking-
Glasse : With more I shall not
presume to abuse your Lord-
ships Patience ; since as the
French say, *Il faut se lever de table*

avec bon appetit. Mine shall never
long more, than receiving the
Honour of your Lordships Com-
mands, as being, my Lord,

Your Lordships

most humble

Zealous Servant,

Balthazar Gerbier.

TO THE
RIGHT HONOURABLE
the EARLE of
BRISTOL.

Y Our Lordship who hath
seen both Spain, Italy
and France ; and therein ob-
served what is worthy, as a
Person of that Great Judge-
ment, as makes a true distin-
ction between things that are,
and are not, will at the first
view judge of this Counsel
and Advice to all Builders ;
c 4 who

who will not have just cause
to dislike the Offer, since the
several Materials comprized
therein, are of the best Rate,
as any can be ; they are gra-
tis , and accompanied with
the Zealous Respects to all,
as to Your Lordship in parti-
cular, By

Your Lordships,

most Humble,

Zealous Servant,

B. Gerbier.

TO THE
RIGHT HONOURABLE
THE
EARLE of
NEUPORT.

MY Zeal and Respect to
the Nation in general,
obligeth me in the Ad-
dresse of this Little Treatise to
your Lordship, to mention some
things of old, as true as some
were groundlesse; For as your
Lordship in the Expedition for
Rockell had the Command of
Horse, the *French Mercury* then
had

had no just cause to write, that there were five thousand *English* slain in that Expedition, since at the return of the Army, foure thousand five hundred men, of those five thousand that went, were Mustered at *Plymouth*.

The Retreat was as good as the Attempt, by matchless *Buckingham* most *Cæsar*-like Glorious.

And *Richelieu* had no just cause to assume unto himself the glory of the Conquest of *Rockel*, since providence had onely permitted it, for if the Town had held out till the Sea over-turned the Ditch and the Escade, neither had the unresistable work, which it was commanded to build in three Ships, according to the example of those of the
Duke

Duke of Parma at the Siege of
Antwerp to blow up Ditches,
Escacades, and Chandeliers, been
necessary, nor the hazarding the
life of men for the succour of
that place.

In fine (My Lord) I should
fail, (as I do humbly conceive) as
much in memory as in duty, if in
the offering this my little work
to your Lordships hands, I should
not speak in a language differing
from that of workmen, as in re-
ference to Building, I might
not omit this Addresse to your
Lordship as to others, since your
Lordship hath been exemplary
to better Building on that part
of ground where your Palace is,
then the old *Norman* gotish Lime
and Hair-like daubing custome,
out of which it hath been so
hard to turn men, too constant
therein,

therein; but my profession not
being changeable, I shall with
more confidence stile my self,

Your Lordships

Most humble

Zealous Servant,

Balthazar Gerbier.

To the Right Honourable

H E N R Y

Earle of

St. *A L B A N S*,

Lord Chamberlain to her Gracious Majesty, the *Queen mother*,
and of his Majesties most
Honourable Privy
COUNCIL.

THis little Treatise mentions the best way for Building of Habitations, the Choice of Surveyours, Clarke of the works, Master-Work-men, and Materials, as likewise the Rates and Prizes of them, and of the Works, even the manner of the East Indians burning of Lime, which could serve your Lordships Builders in St. James-fields (if les Ardennes were near it) to burn more Lime in twenty four hours time, then would be necessary for mortar to all that precinct.

As for the rest, your Lordship hath
seen abroad, the fairest Palaces, and most
compleat habitations, the best contrived
Ground-plats, and also most Paradise-
like Gardens, according unto the vari-
ous fancies of their proprietors; the one
affecting Houses all of Glasse, to have
all men see them; Others their Gardens
most like an open field, or like Adam
and Eve, when in their State of Inno-
cency; Others with Parters, and Imbro-
deriers for exercise to Gardiners pair of
sheers; other covered Walks, Labirinths,
open basins for Fountains; others with
grots (as at Ruell, and Liancour in
France,) with such shades as that
Nymphs may not be bereaved of a natural
liberty; nor Acteon seen with his curled
brow; In fine, that Petrarca his saying,
(Per tanto variar Natura è bella)
might not become out of date, nor may be
extinguishd your memory.

Your Lordships

most Humble,

Zealous Servant,

Balthazar Gerbier.

T O
The Right Honourable,
VISCOUNT
STAFFORD, &c.

THe Advice-giver to Builders, must less pass by the precinct of *Tart-hall*, then of all those famous great Seats which the ever to be honoured Lord High Marshal of *England*, the Earle of *Arundel*, and *Surrey*, your Lordships Father did possesse, but of all such as the very aspects of number of Brick-buildings, since the reformation of a *Gotis* relick building, hath manifested to have been the maine cause, that some of them Bear-like-whelps (by licking and smoothing) have gotten some fashionable like shape, and times may work an increase of comliness

ness on them, which that all help
may contribute thereunto, this
zealous advice, doth start forth
as a little Postillion, to lead those
that may in time make up an
excelling number, that shall be of
more consideration, then such as
seem to take delight to loiter, as
on the old road, about ill sha-
ped things, I shall in the interim
endeavor to pay those respects
unto your Lordship, as due, and
long since profest by

Your Lordships

most humble,

Zealous Servant,

Balthazar Gerbier.

To the
Right HONOURABLE Lord Brunchford,
Viscount Lyons in Ireland, President
of the Royal Society of Philosophers
Meeting at Gresham Colledge, and the
rest of that Honourable Society.

Possibly there are not wanting such
who accustomed themselves to carp
at all things not directly of their
humour, that will (upon sight of the Title
of this ensuing discourse) think it strange,
that I should in an Epistle to you, treat on
the case of the perishing Buildings of mor-
tals, though you already have been enter-
tained with observations made on the bills
of mortality; as also the Vegetation of
Plants, when as indeed your Apollo's O-
racle-like Arcenal, may challenge the most
sublime proffers of men of parts; And that
if I would follow the practise of men, who
tell strange things, (having been in parts
remote from this Region) I should not be-
gin with Clay, Sand and Chalk, whereof
Bricks and Lime are made, and is daily
digged here at home. I should rather have
set forth some account of Marriners, which
during a year and upwards were my sole
d
Comt.

Companions on the Ocean, or the cause of
the Trade Wind, which serves us to Ame-
rica, without shifting Sails; as also whe-
ther the starry apparition which discovers
it self, when North-Pole is obscured, be that
which Constantine the Emperour see,
whereby he made his Victorious conclusion;
2^{ly} How my Stear-man found the Ebb &
Flood all along the Coast of America,
contrary to the several observations and re-
lations of a number of Sea-men, who have
maintained, that it was impossible for a
ship that was fallen on that Coast below the
Port (where to it was bound) to get up a-
gain; except it tackt about one hundred of
Leagues, to recover a Trade wind for the
reaching a higher Course; having found
(as I say) the contrary, after my Stears-
man had lost time to sail five hundred
Leagues beyond the River of Amazons,
not to fail to cast Anchor before that of
Wiapoca, Aperwack, Cawo, Wia, and
finally in the Bay of Cajana; when as my
Stear-man found that notwithstanding
the violent stream from that River of A-
mazons, he was not hindered to get up a-
gain by reason of a constant ebb and flood.
Criticks knowing also that (among
such

such Eminent Philosophers (who like Stars
in the Firmament, do with the approbation
of the great Apollo of this Monarchy, and
his sacred influence, dive in matters most
sublime) would fit more seasonably from
me an account of a day of rejoycing made
by wild people (who know no more of God,
then that they are told of him to be a good
man, who drinks Tobacco, and that if
they do well, they shall go to him with their
wives to drink with him, to the confusion
of those who pay not their vows in obedi-
ence, as is most due to Sovereigns; which
was manifested, when one of their Chiefs
told me, that his sacred Majesty was re-
turning to His Throne, when no living
creature was come from Europe into that
part of America to signifie that News,
which was (as they said) revealed unto
them by their Mackohy; it was when His
Majesty was yet at Breda; whether then
this truth doth not confirm, that Spirits
not clogg'd with material bodies, know
things most secret.

But leaving Criticks to their unneces-
sary scruples, I have for the present pitch-
on this discourse concerning Building,
and thought fit not to forget to Dedicate

an Epistle to a Person of so great Honour,
so great Knowledge, and particularly in
that without which, a great Philosopher of
the first Learned Ages would not admit
any into his Accademy, to wit Geometry,
a Person that understands all the Appur-
teinances to the Mechanicks, who hath a
matchless knowledg of the building of that
whereof the Original was made, by the di-
rection of the Supream Architect, to wit,
the Arke.

And this being my dis-interested scope, I shall re-
main confident that this Advise to all Builders,
may be usefull either to your Lordship, or to some of
the Royal Society, or to any of those to whom they
are bound to wish well, that they may be perswaded
to beware of ill Builders, who may well deserve to
be comprehended in the Bill of Mortality, since by
their Exorbitances, happen many irreparable acci-
dents, viz. Chimnies which falling through the roofs
of Houses, kill good people in their beds, who con-
trive Rooms, Windows, and Doors, which draws
upon Inhabitants ill and infectious Air, from which
I shall continue to wish all men may be preserved,
and profess to be,

Your Lordships, and the rest of the

Honourable Society,

Zealous and most

Humble Servant

Balthazar Gerbier.

T O
The Right Honourable
T H E
L O R D W I L L O U B Y,
O F
P A R A M.

S Ome may think it strange
that this Counsel and Ad-
vise concerning Building,
should also be presented to
your Lordship, who mindes
at this present, the Populating
of such a part on the *American*
Coast, where Houses are buil-
ded in two hours time, because
they have no second story, lesse
third or fourth; the Inhabitants
d 3 where-

whereof affecting no other li-
very then that of the first
naked ; and who conceive
that leaves of Trees do thatch
their Domiciliums with lesse
danger to their naked parts,
then if covered with Dutch
Pan, or English-hard-burnt
Tiles.

But, My Lord, I confesse
(though I am seventy two
years of Age) that if the *Cha-
ribden* could give me an Ad-
vise of life, certain as the
Newes they told me (four and
a half degrees by North, the
Equinoctial) of the Kings re-
turn, when at that time, yet at
Breda) and that I should live
as many years as quarters of the
Charibden his Toes and Fin-
gers, which is all he can ac-
count by, I should think my
little Counsel and Advise con-
cerning

cerning Building, might yet be put in practise in those parts, where there is most rare Marble, and precious Stones, where Magazines, and Store-Houses, might be built to better use, then Casickes made of *American Bamboues*, whereof I cannot forbear to speak to a person of so much Honour, Knowledge, and Experience, as your Lordship is, who hath heard much of *El Dorado*, and if Men had minds as pleasing to God, as that they by his blessing were led to that place (which is effectively in *rerum natura*) the Great Cathedralls of *St. Paul*, and *St. Peter*, in this Metropolitane City might be lined as Richly as the Temple of *Solomon* was. And, My Lord, because things which Men do believe to be true, makes them

more confident to speak them;
I think that the Discourse is nei-
ther unseasonable, nor the
Counsel and Advise concern-
ing the best manner of Building,
unpleasing unto your Lordship:
It being Written by him, who
professeth to be,

Your Lordships

most Humble

Zealous Servant,

B. Gerbier.

T O
The Right Honourable

WILLIAM Lord CRAVEN

Baron of Hamsted, Marshal.

I shall not in this Epistle com-
mit the faults of those Authors
who crave great Persons to Pa-
tronize their books, as if Quality,
Credit, and Affection could free a
work from censure in the various
Opinions of Men, are more then
the expressing the Name of Peli-
can or Phœnix in a sign, when the
Painter hath not represented them
to the life: Cooks cannot please
all Palates alike; nor Orators, the
eares of all Men. My scope in this
Epistle is, to pay to your Lordship
a small acknowledgement of the
debt due to a Noble Person, who
affects

affect Buildings; and that all those
whom your Lordship may think fit
to imploy therein, may know what
good Builders have observed, and
that if they follow those Rules, they
will do their duty. The Study of
mine, and wishes for Your Lord-
ships satisfaction in all things shall
be as constant as I am,

Your Lordships

most humble

Zealous and Ob-

liged Servant,

B. Gerbier.

T O
The Right Honourable

CHRISTOPHER Lord HATTON,

One of his Majesties most Honourable Privy Council, &c.

THis Epistle shall say somewhat more particular concerning Building in reference to a Publick good, then all the other, which are put to this Treatise; *Viz.* That if your Lordship were pleased to reflect on the Proverb, *Faneratur Domino qui miseretur Pauperis*, Cap. 19. v. 4. Your Lordships Building might be very fit to serve for a Bank of Loane in that part of the Suburbs of this Great City; and your Lordship would do no more then other Christian Eminent Persons in other Parts, who have bestowed both Houses, Lands, and a stock of Money

B. G. G. G.

ney for such a Publick use, whereby
all necessitous persons are rescued
from a perishing condition; Trade
Strengthened, Encreased, and many
Bankrouths prevented.

In fine, your Lordship, will not
take this Relation unkindly from a
person who means well, and who
being past his Seventy two years of
Age, is ere long (according unto
the frailty of Nature) to turn his
back upon the World, and is ob-
liged ere that last moment, to leave
all what possible may be to its Pub-
lick good, as I shall at all times at-
tend your commands, in what may
concern the approving me to be,

Your Lordships

most humble

Zealous Servant

B. Gerbier.

TO THE
RIGHT HONOURABLE
DENZIL Lord HOLLIS,
One of His Majesties most Ho-
nourable Privy Council.

IF during your Lordships absence
any of your Habitations require
their Over-seers, and Officers to
be well and friendly advised; this
litte Discourse concerning that
matter, may be as usefull to them, as
it is zealously sent to your Lord-
ship, who hath seen several good
Ones, and whose Judgement (as
good as your Nature) makes a true
distinction between those that are
so, and are not; which admirable
quality in your Lordship, will fa-
vourably dain the acceptance of
this Epistle, though its but on the
Subject

Subject of the well ordering of materials for the Building of Habitations, when your Lordships great and blessed Genius conjoynly with the other true Zealour in the Council of a Sacred Sovereign, doth cooperate to the Rebuilding of a peaceable flourishing Government, wherein your Lordship, as all those of the same quality, may have successe answerable to the Zealous wishes of,

Your Lordships

Zealous and most

Humble Servant.

B. Gerbier.

TO THE
RIGHT HONOURABLE

Anthony Lord Ashley,

*Chancellor of the Exchequer,
and one of his Majesties most
Honourable Privy Council.*

THe Nation in reference to
a lively Image of the Su-
pream sacred, by an assem-
bly of Representatives, takes no-
tice of your Lordships great Ge-
nius in representing *Solomons*
Temple-like Foundations of a
State, to free it from the fate of
the *Hebrews, Assyrians, Persians,*
Lacedemonians, Medes, Greeks Af-
fricans, Romans, and even the
Gots, who were sent packing by
the *Mores*, whereof but too many
(as black in mind) are left; and
therefore

therefore though a poor small
thing which treats but of Sur-
veyors, Clerks of Works, Master
Workmen, Materials, and their
Prizes, be not of a sublime, nor of
State matter; yet since from the
least that lives, to the greatest
Building is a main necessary, ei-
ther for one conveniency or o-
ther; (My Lord) this apparent
Demonstration of Zeal, and Re-
spect is humbly offered by,

Your Lordships

most humble

Zealous Servant,

Balthazar Gerbier.

TO THE
RIGHT HONOURABLE

Sr. John Robinson K^t.

LORD MAYOR of the most
Famous City of LONDON.

As what's alleadged in the E-
pistle to the Reader of the
Counsel and Advise to
Builders doth infer, that the water
of Thames, or of any Spring in the
Country, may serve to temper Mor-
ter in England; so the observati-
on of true Rules (waving all quick-
chaws - like - devices) to Build as
well as other Nations. It will not
be necessary to say thereon any more
to the Chief of the Senate of this
Great and Famous City; nor will
the Presentation of these printed
leaves, require any more Circum-
stances

stances but my Zealous wishes, that
next to the well Building of Pub-
lick Houses of Prayer (whereof all
Nations have been carefull, those of
its Inhabitants may be so well or-
dered, that other Nations may have
just cause to send their Surveyours
and Workmen to take patterns, and
passe their Apprentiship in London
or Westminster, where St. Paul
may be rendred as Famous as St.
Peter at Rome; As King Henry
the Seventh's Chappel in St. Peter
at Westminster, (who quarrels not
on the point of Precedency) is Fa-
mous over all Europe, and Esteem-
ed by all good Builders; and that
all may answer the same, is the Zea-
lous wishes of.

Honourable Lord Mayor,

Your most Hum-
ble Servant,

B. Gerbier.

TO THE
RIGHT HONOURABLE
Henry Howard Esq;

YOU that know what
good Building is, both
by a Genius, which
through a Golden Channel
sprung from the great Duke
of *Norfolke*, was infused in-
to your Spirit, like by your
particular applications to
all things answerable there-
unto, would condemn this
Messenger, if he should not
deliver his Erant at your
Palace, where he calls nei-
ther on Porter nor Butler

to draw him in as an *Erasmus* was at the Lord Chancellor *Moore's*, to drink in Hell, as he said, out of a Leather Jack; He desires only to hear the words *Ben Venuto*, and its Author to pass for,

Honourable Sir,

Your most humble

Servant,

B. Gerbier.

TO
M^r. HARBERT

ESQUIRE, Heir Apparent
to the RIGHT HONOURABLE
the Lord POWIS.

Honourable Sir,

THe Ensuing Discourse is not presented to your view, as a shape seen on the brow of a Hill, which faceth the Valley of Effen; It's true, that cannot (as this) fall; that cannot (by the carelessness of Grooms) be set on fire; and therefore on that matter, to a Person of your Noble Birth and Retinue) one who considereth your merits, is obliged to recommend to such, who may be entrusted with your Building; that Stables, and even Kitchens ought to be separated from the main body of a Palace, the Stable without any question; in particular Mansion-Houses; the Kitchens may be so well disposed, as that they may be at hand, and yet not be an annoyance, which made the

Great Henry the Fourth, the French King say in a double sense to some of his Courtiers, who did accompany his Royal Person to see a good Seat in the Country, and found fault with the compa^dness of the Kitchen, *Ventre St. Gris cest le bon menagement de la Cuisine qui a fait la grande Mayson* : Furthermore (Honoured Sir) you will see in a former Printed Discourse, concerning the three Chief Principles of Magnificent Buildings, what you may perchance finde seasonable; and whereon I shall explaine my self somewhat more at the end of the leaves, bearing the Rates of Materials necessary to the Works, and conclude this with my humble Respects to your self, as being,

Honourable Sir,

Your most hum-

ble Servant,

B. Gerbier.

To the Honourable
Sir Kenelm Dighby,
*Knight, Chancellour to Her
Gracious Majesty, the QUEEN*
M O T H E R.

THe Greatest Practisers of
Musick, who live at *Lisbon*,
& in all the *Algarves*, are reported
to repair *A las Orillas de la Mar*,
to sing as loud as possibly they
can, to hear whether it sounds
well : To you whose deep judg-
ment could not suffer your Eyes
to fix on slight objects as too ma-
ny Travellers have done, to you,
whose fame, to my experimental
knowledge, caused the greatest
Vertuosi to busie their admira-
tion, as eminent as the true suc-
cessour of *Thales*, who found the
North for Navigation, the Divi-
sion of Years, the Proportion of
the Sun and Moon, that Souls

are Immortal; who answered the Question, what God is, viz. To be the eldest of all Antiquities; the World the most beautiful Object, Place the biggest, Time most knowing, God, Virtue, and Truth the strongest.

To you as to other Worthies of the Age, is offered this little *Counsel* and *Advise* concerning *Building*; for you have seen the various varieties of *Frescati*, *Caprarola*, *Vigna Lodowici*, and all what is rare throughout all *Italy* and other parts of *Europe*; and therefore as you can judge right of this matter, so recommend the *Advise* given concerning the same to your friends, which may be a benefit unto them; and this is all that is aimed at by me,

Honourable Sir, Your most

Humble Servant

B. Gerbier.

T O

Sr. Edward Walker,

Knight, Quarter, Principal

King of Armes, and one of

the Clerks of his Maje-

ties most Honourable

Privy Council.

MEn that study nought but
to carp at all, will per-
chance pretend, that I
should not Present a Discourse con-
cerning Building to a King of
Arms, but rather a Treaty concer-
ning the Antiquity and Origine of
Herauldry : That the Romans be-
fore Marius had in their Banners
(to distinguish them in Romulus
time, from other Nations) no more
then a bundle of Hay, to which suc-
ceeded a Hand, and a bundle of
leaves, with the Motto on their Ban-
ner

ner. S. P. Q. R. Godefrey de Bullion put on the Coat or Adantle which he did wear over his defensive Armour, three white Eagles shot through with an Arrow, the Motto, Soit Dieu, soit le hazard; and said, That he would wear no Crown of Gold, because the Saviour of the World had but one of Thorns.

But to return to the first Romans, that Constantine the great did Coat a double-headed-Eagle, for having made a Seat at Constanti-nople, and kept also that at Rome, that the Coat was afterwards changed, because the Empire was divided into two.

And as for the French, that they reckon their descent from Francion, second Son to Hector, who did Coat a Lion, gul, field Or.

That the black Toades were taken up by Marcomir, second King
of

of the Sicambres, who had purchased a Walon King whose Coat was three Loades, Sable field Or.

That Clovis (who became a Christian) did Coat number of Flour-de-lis, because (as the fable saith) an Angel (by the hand of an Hermit of Journal) did give them; Others, that he had obtained a Victory in a Field, wherein great quantity of yellow Lilies did grow; and that finally Charles the Sixth, the fifty fourth French King, did reduce them to three on the persuasion of his Herauld, who had told him, Qui plus a moins porte.

But should Time and Paper be spent to relate what is so well, and particularly known by you, it would savour of Vanity, and therefore I shall say no more, but that if you, or your friends do affect Building, this Counsel and Advise may perhaps
be

be seasonable, neither will so discreet a person (by all men) highly praised and beloved for his Integrity, and real good disposition to oblige all men, misconster the respects of him who, professeth to be,

Honoured Sir,

Your most hum-

ble Servant,

B. Gerbier.

TO
S^T. PETER KILLEGREW
KNIGHT.

DURING your Journeys
to *Spain*, objects of
note could not escape your
particular Observations ; as
St. *Jeronimo* called the *Es-*
curial, which hath almost
as many Courts, as some Pa-
laces Roomes, and is a Bo-
dy Solid like a Rock ; Nor
will the Magnificent Seil-
ings, and Carved Doors of
the Palace at *Sigovia* have
mist your Annotations ; So
that this Treatise of *Buil-*
ding

ding, cannot likewise but
be acceptable to you, as
directed to a Person who
can with more convenien-
cy acquaint his Grace the
Duke of Albemarle, of what
use it may prove to those
that will not spend time,
money, nor materials in
vain; which is also one of
the causes of producing it
unto you,

Sir,

By your most affectionate

Humble Servant,

B. Gerbier.

T O

ST. THOMAS WINDEBANK

K N I G H T.

One of the Clerks of the

S I G N E T.

Among such as know by experience what demolishing is, Counsel and Advise to Re-build may be welcome; but I cannot pass the remembrance of a Fable that several Nations having craved, it might for six weeks time rain good Noses; The Grecians the readiest at hand had their choice, the Romans the next, but the silly Black-Moores (living in remote parts) were the last, and therefore constrained to gather such Noses as had been trod on.

Of those Blacks the Generation still are in esse, and there are certain malicious spirits who make men black, though they be never so white, and though their Noses are as straight as an Arrow, they will

will strive to persuade people they were crooked.

But now an Apollo-like Prince, (who casts his most benigne influence on men) is accessible, its time (as the old saying) to make Hay; Re-build therefore as fast as others, what a destroying Age hath demolisht, and if in your Building, you want instructions for your Clark; pray let him make use of this Manual heartily Offered by,

Sir,

Your Affectionate

Humble Servant,

B. Gerbier.

being
to
St. PHILIP WARWICK
KNIGHT

YOU have many Years
past been known to
possess a Genius capable of
all good Impressions, and
therefore I thought it not
beyond the purpose (but
suitable) to the Acknow-
ledgement of the particu-
lar Esteem, I am obliged
to make of Virtues ex-
celling in Men) to offer
you this Little Treatise
f being

being sufficiently convinc'd
of your Judgement in all
particulars, not doubting
but you will believe me
to be,

Your most Humble

and Affectionate

Servant,

B. Gerbier.

To Sr. JOHN BABER Kt,
one of his sacred Majesties Physitians in Ordinary, Established by Letters Patents under the great Seal of England, and one of the Fellows of the Colledge of London.

I Look not for particular thanks for the Presenting this Manual to you as to others; It's but to express the respects of my Obligation for your having made good the saying of the Ecclesiastes concerning Persons of your Capacity; For they shall also pray unto the Lord, that he would prosper, that which they give for ease and remedy to prolong life, which you did in that person, whom it had pleased the Almighty to suffer me to enjoy, during the space of 43 Years, and to whom I ow this true Testimony; that during so many years time, she never gave me any just cause of discontent; But to the contrary, to wish that you might long before the increase of her indisposition, have been invited for the lengthening of her days in this World, where truly I should not spend time about Notes concerning Building, when the wishes of the great Apostle urgeth

men to think more on a dissolution; were
not preservation the first fundamentall
principle of man? And doth not the
Scripture commend to mind it, as it doth
very particularly point at the Physicians,
who doth know, what those various, most
admirable dimentiones in the Microcosme
do require: And that as it is a good Aire
which corroborates the most subtile parts of
that Master-Piece of the great Architect
of Heaven and Earth; A House to a
whole Family ought to be so contrived, as
to enjoy that general necessary benefit: In
which respect the offer of this Discourse
concerning Building may be said proper
to you, and my reason therein not to be
gain-said by malicious Criticks, who are
wont to feed on flowers of the most sweet
scent, and may to your Honey-Bee-like
disposition, this be so from,

Your humble Affectionate

Obliged Servant,

Balthazar Gerbier.

Mr. P O V R,

Treasurer to his Royal Highness
the Duke of York

You are known and re-
puted to be (as the
Vertuosi say) a lover of Art;
The inside of your Habita-
tion speaks it, and truly one
good inside is to be preter-
ed before a hundred of such
as signifie but a show of
something; the love one
hath to Musick argueth a
well composed Harmonious
mind; so the love to Art
(consisting in perfect Rules,
f 3 Di-

Dimensions and Formes)
inters the party to be a true
Rational, who blusheth not
at the Bees their Geometri-
call contrivances even in
the dark.

I do present you with
one of the Examples for
true *Building*; I hope you
will reflect on it as coming
from,

Honoured Sir,

Your most Humble

Affectionate

Servant,

B. Gerbier.

TO
Mr. WILDES.

KNowing what
Building is, and
shown it at your owne
Charge, this Little
Treatise is then (as I
do conceive) well ad-
drest to you, without
any tedious repetitions
in this Epistle; nor
doth the Treatise (by
many Lines) entrench
on the time and pati-
f 4 ence

ence of a Reader ; It
recommends to a good
Clark of the Works, to
see the Workmen per-
form what they know
ought to be done to
Build well ; and this
cannot be offensive to
men that mean so, nor
more then the respects
of,

Honoured Sir,

Your most Humble,

and Affectionate

Servant,

B. Gerbier.

To Master *William Wine.*

Here is an Epistle to you, a lover of that which *Marc Varro* saith; was the second thing accepted by all the world, to wit, Letters: which the *Ægyptians* did attribute unto them, though the *Assyrians* would have the glory thereof, by them are taught to speak well, though they are mute; and what good seasonable speech is, *Papirus* found in, the Senate of Rome; *Grotius* by *Henry the great*, at the 14th year of his Age. And you will no doubt (having begun betimes) continue to proceed vigorously in all virtuous exercises, and make good (in the Royal Society of Philosophers at *Gresham Colledge*) that you are not of those who content themselves with gilt out sides of books, but every day to remember the great Artist in the drawing of a line, whereby he meant a continual exercise to perfection, the scope of True Knowledge. I must therefore by this Epistle (whereby I do send to you as to others, this little Manual) freely
tell

tell you, that though never the hand
of man could draw a perfect Line,
(*himself being imperfect*) yet must a
lover of perfection strive to do his
best, both in straight lines in the Mi-
litary Art (*which you have studied*) and
the ground-plats for an Habitation.
But those Lines must be visible, no af-
fected ones, nor small as a hair, since
Courtaines, Bastions, and Contres-
carps, are to be traced for old eyes,
as well as for young adventurers.
Nor are the lines for the ground-
plats of Houses to serve for Castles in
the air: And therefore good Draughts-
men do express them strongly, what
is to be built in Brick by a red line,
what with Stone white, what Parti-
tions in Timber-colour, a mote-like
water, Gravel walks, (or others) ac-
cordingly, that the Workmen may
have the less cause to excuse; Which
I thought fit to note, wishing you all
encrease of Virtue, being,

Tout Affectionné

Servant,

B. Gerbier.

TO THE
Courteous Reader.

W Hereas all Creatures from
the Mole (that hath no
great sight) to the most
Argus-like above ground, are con-
tinually a Building, and stand in
need of Mechanical more then of
Phylasophical Rules: This little
Manual doth therefore point at the
Choise of Surveyors, the duty of
Clarks of the Works, Brick-layers,
Masons, Carpenters, &c. who must
be spoken unto in plain intelligible
termes, for that divers Work-men
resseemble those, whereof the Eccle-
siastes, saith, That when a Tale is
told, then they will say, What is
the matter? This Manual doth
both now and then proffer a word
or two to cherish the Readers pati-
ence, for that bare names of Mate-
rials,

rials, of Forms, and several parts
of works will too soon tire Noble
Persons; Nor is this present Age
void of number of Authors, who
have written more on Architecture
then any Clark of the Works will
have time to learn by Art: These
summary Notes will serve for such
as are intrusted by Owners of Build-
ing, that they may the better per-
form their task, and have more cre-
dit with the several Master Work-
men, who do love to be spoken unto
in their own phrases; And Owners
of Buildings, their Trustees, Stew-
ards, and Pay-Masters being possess'd
with the Rates of Materials, will be
more at rest, than otherways if they
should be to seek, to make perpetual
enquiries after them, and be vext
with ill groundd reports.

Furthermore, you may gather out
of this Treatise, a Pozie pleasing to
your scent, and leave the gleanings,
which

which are most proper to Mechanicks concerned therein, until a large work (with Copper Plates) shall have had time to be put forth, wherein not only shall be represented in compleat measure, the Forms of all Moulding of Orders, Columns, Ornaments for Doors, and Windows, Court, Houses, and Gardingates, and withall some Fronts, and Dimensions of Houses both in a City, and in the Country; Churches, Towns, Houses and Steeples, with all necessary Appurtenances thereunto belonging; As also the charges a Builder may be at, according unto the extent and height of a Building, either made of Stone, Brick, or mixt.

You will have no just cause to infer, that when the best Building is mentioned (according to the Grecian and Roman manner) that therefore English Labourers shall
need

need go with their Buckets to fill them at the Tiber, less to the Scene at Paris, to temper their Mortar well, nor your Surveyors, nor Master-Workmen to be vext with things al-a-node, if they will but observe Rules, Dimensions, and Forms, which are not to be mended, less contradicted.

And as for the number of Epistles which are put to this Manual.

Anthony Peres (once Secretary of State to Philip the second King of Spain) was a president for the putting of many Epistles to a Treaty, which he Dedicated not onely to Eminent Persons in Spain, but also in France and England; 'twas his Peregrino, the main whereof represented a Demolisht Body: The scope of this is contrary to that, being about Building; his was a personal interest, this a Publick: It's therefore

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fore the more freely offerèd to a number of Persons, who either themselves, or friends may have occasion to make use of it; It's freely offerèd as to the upper, so to the lower end of a Table, like a fresh gathered Fruit; and none of those who are pleased to accept it, are crav'd to Patronize it, it being held most unfit for any Authour to crave, since no man is bound to answer for faults committed by another.

T H E

[illegible]

THE



A Brief Discourse,
concerning the
three chief Prin-
ciples of Magni-
ficent Building,
viz. Solidity, Conve-
nieney, and Orna-
ment.



Whereas Building is much
minded in these times,
I thought fit to publish
some Principles there-
on, which may stand the lovers of

It instead. Yet without spending time and Paper to Note how a Point, Line, Angle, Demi-circle, Cube, Plint, Baze, Pedestal, Colombe, Head, Architrave, Frize, Cornice, or Frontispiece must be made; and what Dimensions all those several parts (a Point excepted) must have, since all Master-Workmen ought to remember) as Schollars their Grammar, and Arithmatitions their Table) how every Particle must have its just proportion; and that the height of Windowes and Doores must be double their breadth; and also to be carefull to maintain the due esteem of their Art, since its Dimensions and Rules came directly from Heaven, when the great Architect and Surveyor of Heaven and Earth, prescribed the Rules and particular Orders for the Building

Building of a floating-Pallace,
(*Noahs Ark*) and the glorious
matchlesse Temple of *Solomon*,
the perfect House of Prayer.

And therefore such Precedents
may serve to convince those who
say, That a wise-man never ought
to put his finger into Morter,
since there is a necessity for
Building, especially among Na-
tions who do not, or cannot live
in Caves and hollow Trees, or
as the *Wilde Indians*, who have
no other Roofs but of Palmito-
Leaves, nor Wainscot, but Bam-
bouses, as they call the Poles to
which they tye a Woollen Ham-
mac to lye in.

There are three Capitall Points
to be observed by men, who in-
tend to Build well:

1. *Solidity.*
2. *Conveniency.*
3. *Ornament.*
Those

Those who have Marshall'd the Orders of Colombs (to make good the first Point) have Ranged the Toscan to be the Supporter of a Building, but such an Atlas must stand on a firm Ground, not as ill Builders place Colombs (either of Brick or Stone) like things Patcht or glewed against a Wall, and for the most part against the second Story of a Building, (contrary to the very *Gothish* Custome, who at least did begin their Buttrises from the Ground) as if their intent were, that the weight of the Colombs should draw down the Wall, on the heads of those that passe by.

Such Builders confound the first and essential point of Building, (to wit, *Solidity*, with *Ornament* and *Conveniency*.)

They will make a shew of some thing, but misse thereby (as ill
Bow-

Bow-men) the Mark: They may perchance have heard of rare Buildings, nay, seen the Books of the *Italian* Architects, have the Traditions of *Vignola* in their Pockets, and have heard Lectures on the Art of Architecture, which have laid before them the most necessary Rules, as also the Origine of the severall Orders of *Colombs*, and Discourses made thereon; that the *Toscan* is as the *Hercules*, so of the *Jonic* and *Corinthian*; the first of the two to Resemble the Dressing of the Daughters of *Jonio*, who had Twists of Hair on both sides of their Cheeks. The *Corinthian* Heads to represent a Basket with *Aeante* Leaves, and the Guttered *Colombs*, the Pleats of Daughter and Womens Cloaths.

That the *Grecians* (in remembrance of their Victories) did

Range the Colombs in their Buildings; to represent the number of Slaves which they had taken; the Grains, Beads, Drops, Pendants, Garlands, Enterlaced-Knots, Fruitage, and an infinite number of Ornaments, which are put on the Frize, to signifie the Spoiles which the Victors had brought away from their Enemies; and to preserve the Memory thereof, did place them on their Buildings, that they might also serve for a true History.

But none of such Ornaments were ever impediments to the strength or convenience of a Building, for they were so handsomely and well contrived, as once the Dutchesse of Chevreuse (a French Lady) said of the English Females, that they had a singular grace to set their Ornaments right and handsomely.

The

The *Babarians* and naked *Ta-
poyers*, *Caripowis*, *Alibis*, (and se-
veral *Charibdiens*) do place Pen-
dants in their Nostrils, which are
proper for the Eares; and these
hinder not the use of the Lips,
which ought to be observed by all
Builders.

And as for the inside of Fa-
bricks, Builders should in the first
place set the Doors, Chim-
nies, and Windows, as may be
most convenient for use.

Builders ought to be not onely
experimented in House-keeping,
but also good Naturalists, to know
(before they spend time and Ma-
terials) the required Property to
every part of a Building. A Doore
to be so set as it may not convey
the Wind toward the Chimney or
Bedstead, though opened never so
little.

The Windows to be so placed,

as that the Fire made in the Chimney, may not attract the Aire and Moysture, and so prove the unwholesomest part of the Room for those that are near the Fire; Which was the main reason why the great *Isabella Infanta* of Spain (King *Philip* the Seconds Daughter, who Governed the Provinces of *Brabant*, *Flanders*, *Arthois*, and *Haynault*, during her many years Residence at *Bruxells*, (being prepossessed with a prejudice, never approached a Fire to warm her self; till at last being through wet (going a Proceffion in a great Rain, and by a Visit made by *Mary of Medicis*, Queen Mother, to *Lewis* 13th, just as she returned to her Pallace) had no time to Shift her, she was constrained to approach the Fire to dry her self, and few dayes after she fell sick and died upon it: which

Relation

Relation being very true, and hap-
pening in the time that I resided
for the King of blessed memory in
that Court, I thought fit to men-
tion, to perswade all Noble and
curious Builders, to place their
Doors, Windows, and Chimnies
in their proper places.

An though it be not my de-
sign in this small Discourse to
Treat of Dimensions (which are
fit for a Primar to Apprentices,)
Yet I cannot desist (by reason of the
West-Indian Herican-like-windes
which happened February last, to
perswade all Builders to forbear
the Building any more those ex-
orbitant Chimney-Shafts, which
when they fall, break both Roofs
and Sealings of Roomes, and kill
good People in their Beds : since
a Chimney some two Foote high-
er than the Ridges of the Roof
of a Building, (which is not o-

vertopt by a Church or Steeple,
 or some other eminency,) is as
 good a conveyance for the smoak,
 as any of a greater height. Nei-
 ther are those high Shafts of
 Chimnies real Ornaments to a
 Building, much lesse to the Pal-
 lace of a Sovereign: nor do the
Germane Travellers of this Age
 any more fill (as formerly) their
 Table-Books with the number of
 them, as they were very carefull
 to note the Names of their Hosts,
 where the best Wine was, and
 when they tasted that called *La-*
grima-Christi, they moaned and
 askt why he did not weep in their
 Countrey. Its true, that the least
 addicted to Bibbing, did put in their
 Stam-Books the Dimensions of
 the *Pantheon* and of the *Amphithe-*
aters; as also of *Capraola*, *Frascati*,
 and such Magnificent Structures
 above Ground in *Italy*, and under
 Ground

Ground *La Piscina Admirabile,*
La Grotta de la Sibila Cumana, Bag-
 ni de Cicerone, conte Camere, e
 le Sepulture delli nobili Antichi.

But they are now taught by Tu-
 tors to observe the Inside of Men,
 and Buildings. And as the best
 Ornaments of a Face appears at
 first sight by the Eyes, Mouth,
 and Nose; so doth the best qua-
 lities of a perfect Building, by
 Windowes, and Doors well pla-
 ced, as also by a large, magnifi-
 cent, commodious, and well-set
 Staircase.

Noble, magnificent, and com-
 modious Staircases, must in the
 first place participate of a Noble-
 mans manner of Pace and Atten-
 dance.

There is no man of sound Limbs
 (and that hath a gallant Gate) but
 lifts his Toes at least four Inches,
 when he goeth an ordinary easie

Pace; so that if two steps (each four Inches high) be eighteen Inches broad, or deep, which makes six and thirty Inches the two (the just measure of a mans two steps,) they may be ascended from the first Floor, to the higher Story, as if a man walked on a level ground.

2. Those Staires ought to be so long, that the Attendants on each side the Noble Person, Prince or Sovereign, may not be streightned for roome.

Such were the Monarchlike Staires of the Pallace of *Darius* and *Cyrus* the Great, at *Chelminox* in *Persia* near *Saras*, the Metropolitan between *Ormus* and *Espahan*. I do speak indeed of a Pallace without comparision to any other, the Walls of Circumvallation of that Pallace, being four and twenty foot thick, and the Staires (as yet

yet in esse) are fourty foot long,
in number an hundred and eight,
of Circular Form, and of so easie
an Accessse, as that Travel-
lers do ascend them on Horse-
back.

King *James* of blessed memo-
ry could not have been so much
in danger of an Onset in a Paire
of Staires, larger enough for a No-
ble Retinue to his Person, as he was
in a narrow Pair, which History
mentions.

Neither had *Willam* Prince of
Orange been so easily Shot at *Delff*
in *Holland*, descending a narrow
Pair of Staires.

4. A Noble Paire of Staires
should have a Cupelo, and no
Windowes on the sides, which
for the most part serve but for
Rude and Unadvised Men to
break.

In some Pallaces and Noble-
Mens

Mens Houses, *Too many Staires and back-Doors* (as the old *English Proverb*) *makes Thieves and Whores*. And the setting the Front of a Building towards the North-West, and a Pallace, like Cardinal *Wolseyes* ill-placed one (now called *Whitehall*) on a low ground by the River side) makes work for Physitians, Apothecaries, Surgeons, Coffen and Grave-makers.

But as for a Seate on *Morish* Grounds (except the Builders observe the practice of those of *Venice* (in *Italy*) and *Amsterdam* (in *Holland*) who bestow more Timber of Oake in the Foundation of one, than in the Building of six Houses,) in effect tis to Build perpetually, leaving to their Posterity to prop and redresse their ill grounded Buildings, and they may well be rankt with the Duke
of

of *Arscot*, who built much in *Erabant*, and (in a merry humour) designed in his Will ten Thousand *Gilders per annum*, to support and alter what he had Built amisse.

I must also advise Builders on high Grounds, to cause their Surveyors to search for Springs, and shun them; which serve better to fill up Glasses to allay the Vapours of *Gascony* Wines, than to make a Pond in a Sellar.

Builders ought also to be very curious and carefull in the choice of the place to build a Seat on, for good Prospect, well Garnisht with Woods, and the Water at hand, not too near, nor too far from a City or Town.

Item, I must wish all Princes and Noble Persons who are resolved to Build Palaces and Seats answerable to their quality, to imitate those

those who in the Heathen age were so carefull in the ordering of the Structure of their Stone Images, especially of their *Saturn*, *Jupiter*, *Apollo*, *Mars*, *Neptune*, (and all their Fry of wanton Godeesses) as to empannel a Jury of Philosophers, Naturalists, Physiognomists and Anatomists, who were to direct the Sculptors how to Represent those Images. And so I would wish Builders to proceed in the contriveing the Models of their intended Fabrick, to wit, to consult (as those of *Amsterdam* did in the making the Model of their Town-House, divers experimented Architects, though they pitcht for the Front on the worst of all.

• *Item.*, Before the Workmen, make use of Materials, and not to Build at Randome, as the Custom of too many ill Builders is; And when once the Model is approved

proved, never to alter, nor to pull down what hath been well begun, nor to hearken to the diversity of opinions, which have been, and are the causes of many Deformities and Extravagancies in Buildings; and especially those who seem to have had for Models Bird-Cages, to jump from one Roome into the other by Steps and Tressels, to cause Men and Women to stumble.

And the sides all of Glasse (like Spectacles) the glasse Windowes of small Payns, with great store of Lead, to draw the more Wind and Moisture from the open Aire within Doores. As also Windowes with store of Iron Casements, which rust, and never shut close, Notwithstanding all the various devices of Smiths, to catch Money out of the Builders Purses, contrary to the
good

good custome in *Italy, Spain, France, Germany,* and the Low-Countreys, which certainly for plurality of Voices should be believed, and followed.

Those Nations cause their glasse Windows to be fitted in wooden Casements treble riveted, to keep out Wind and Rain; they are lined with wooden Shutters, and have double boarded Shutters without, to resist all the violence of the Weather and Thieves.

Let no man mistake these Windows for wooden Casements, for such are usually seen here in *England* in old wooden Houses, the Casements scarce above one Foot and a half high, tottering things; for these are substantially, strongly, and curiously made Casements, nor are the wooden Shutters such Past-board-

board-like things, as are generally put on the outside of the Windows on the *London* and Suburbs Houses, but double-Deal well-riveted Windows, with substantial Locks, Bolts, and Hinges, and a double Iron Bar, with a Bolt fixt in the middle of them both.

Nor do good builders affect partitions of Lime and Hair in their Houses, nor any of their Bricks to be daubed over with finishing-Mortar.

The *Romanes* are very curious in the tempering their Mortar, and in the laying it as thin as possibly they can, to prevent the sinking and bending of their Walls, which the laying of their Mortar too thick doth cause; and experience sheweth, that when some Walls are taken down in *England*, half of the substance

substance is Sand and Dust.

The *Romanes* (as likewise the *Grecians* before them) did not make use of their Lime, at the same time it was slakt, but for six Moneths time suffered to putrishe, and so putrified composed a Seiment, which joyned with Stone (or Brick) made an inseparable union, and such strong work as I have seen Iron-Tools break on the old Morter of the *Amphitheaters* at *Verona* and *Rome*.

Their manner of preparing Lime is to lay it in Cesternes the one higher than the other, that the Water (after it hath been so stirred as that it is well mixt and thoroughly liquid) may drayn from one Cistern to the other, and after six Moneths time (the Lime having evacuated its putrefaction) remains

maies purified, and then they mix two parts of Lime with one part of Sand, and makes that strong and pure Morter, which is practised in *England* would make a wondrous strong Union, especially if the Clay-makers did bear the Clay as it ought to be, the *English* Clay being better than the *Italian*, nay yette best in the world.

They are very carefull in the making large and deep Foundations, and to let the Walls raised on the Foundations rest and settle a good while before they proceed to the second Story.

Some of our Carpenters have learned to lay Boards loose for a time; the *Italians* and other Nations are not sparing therein, they maye them as if for good and all, but rip or take them up again, to fit them for the second time.

As I said before, no Building is begun before a mature Resolve on a compleat finish, Modell of the entire design: the Builder having made choice of his Surveyor, and committed to him all the care and guidance of the work, never changeth on the various opinions of other men, for they are unlimited, because every mans conceits are answerable to their profession, and particular occasion.

A Sovereign or any other Landlord, is then guided by naturall Principles, as well as by his own Resolve, taken on a long considered Modell, because they know (by experience) how suddain changes are able to cause monstrous effects.

They know that an well experienced Surveyor must not be disturbed in his task and undertaking,

dertaking, but as the Silk Worm
and the Soul of Man, the first
in his Husk, the second in the
Womb, wherein both the one
and the other (by the powers
of the great Architect and Di-
rector of all things) works out
his own compleat Fabrick, if
not interrupted; but if inter-
rupted by any outward acci-
dent, it happens that those pas-
sions become the originall causes
of exorbitant Features and Forms.
An Item for all Builders to suffer
a good Architect quietly to pur-
sue his task, if he understands
it.

It hath been observed a-
mong the French (a Nation as
much addicted to changes as
any) that when the charge of
an undertaking hath been com-
mitted to many, it caused but
confusion, and therefore its a
saying

saying among them, *Trop de Cuisiniers gâtent le potage*, Too many Cooks spoils the Broth.

I shall not spend time, and transgress on the Readers patience, concerning the making of Clay, and burning of Bricks, only say, that it imports much the Clay should be well wrought, before it be put in the Mould: experience hath also taught Brick-makers to have them of such a length, thicknesse and widenesse, that four of them (together with the Morter thereunto belonging) may raise a Foot.

As for Free-stone, *Portland* Stone works well, and makes a good union with Bricks, yet cannot be compared with Marble, nor to the Blewish Stone of the Quarries of *Leige* and *Namur*. But 'tis also certain, that this Climate makes Marble it self to Moulder very much;

much: as for example, the *Cain* and *Abel* in *York-House* Garden, which did not Moulder when it stood in that of the Duke of *Lerma* at *Valedolid* in *Spain*, the coldness (together with the moistness of this Climate) being of a contrary operation to the temper of the Aire in *Italy* and *Spain*. And therefore when Builders see their Copings, Water-table, Cornishes, Railes, and Balisters to decay, they must have patience, since there is no Material but is subject thereunto, and that Railes and Balisters (either on the top of the Walls of a Frontispiece, or in Belconies, though never so well Painted in Oyle, and of the best seasoned Timber,) but must be renewed at forty or fifty years end.

Builders ought to calculate the Charges of their designed Building, and especially with what

Summe of Money they are willing
 to part, and yet remember to imi-
 tate some Philosophical Humorist,
 who resolves to venture on a pret-
 ty thing called a Handsome Lady,
 without which their Fate seems to
 tell them they cannot live, and
 therefore makes an account before-
 hand that all things will not pre-
 cisely answer his expectation. But
 on the contrary, the Lady instead
 of being a good Housewife, (and
 an assistant) proves expensive, and
 an impediment. And if it prove
 otherwise, he will be a great gay-
 ner by the bargain; for let Build-
 ers put their design to Master-
 Workmen by the Great, or have
 it wrought by the Day, either
 the Workmen will over-reach
 themselves, or the Builder will be
 over-reached.
 Charity to the one, and respect
 to the other, moves me to keep
 the

the rest in my Remembrance shall ne-
 ver be backward to inform either
 of them in the ear what may be the
 best for them to choose. But I must freely advise all Build-
 ers in general, never to begin to
 Build on a Ground before it be
 Purchased. As the late Duke of
 Buckingham did at York House,
 where there hath been much daub-
 ing and breaking through old rot-
 ten decayed Walls; first to make
 a Ladies Closet on the corner of a
 Wall where a Buttenykes stood;
 and which was taken away for the
 Closet, intended only at first for
 a Closet of ease, and to serve con-
 till the Archbishop of York could
 be perswaded to accept of a good
 one as there was, in lieu of the
 same, which could not be so soon
 compassed, as the Duke of Buck-
 ingham had occasion to make use
 of Robins, to entertain (accord-
 ing

ing to the Dignity of a prime Minister of State, foreign Princes, and Embassadors, so as on a sudden, all the Butterflies that upheld the rotten Wall were thrown down, the Seeling of Roomes supported with Iron bolts, Balconies clapt up in the old Wall, daubed over with finishing Morter, and all this was a boddeside growth in a night, so faste, that a Model for a Solid Building was made even with the Sertend were made, and to be built in such Stone as the Porridge Water Gate at the River side is, and this was done in 3 Month Ground, whereon no New Building could stand any time without Breppings, which was contrary to the main Principle of good Buildings, that could stand for ever, and must proceed and conclude with my humble respects concerning Palaces of Sovereigne Princes, which

which must differ as much from other Buildings, as their quality and condition from that of their Subjects.

And in the first place, as *Solidity* must be the first Principle in all good Building, so much more ought it to be observed in that of Sovereigns, unto whom the whole world hath access.

And as there must be spacious Ground before their Palaces, their Inner-Court ample, the Offices for their Retinue large and commodious, and so placed as they may neither be an annoyance nor of ill aspect.

The first Stories ought rather to be vaulted than boarded, to prevent such an accident as happened to *Leur 13th French King*, (and his Queen at a Ball,) when the Floore of the Roome (with all the Company) fell down; the King

King and Queen only remaining
(by a special Providence) on the
Hearth of the Chimney, setting un-
der the Cloath of State.

And as there is a necessary
Magnificence to be exprest on the
Front and inside of Princely Build-
ings, answerable to their great-
ness; so is it absolutely necessary,
that the Architect be possesst with
a Soul as great as the Player in the
French Play, called the *Person-
nes*, where he perswades himself
to be *Alexander*, and governs his
Motions accordingly. And the
Lines and Strokes of the Archi-
tect must be *Alexander-like*. His
Figures and Statues *Colosses*, his
Pyramids like those of *Aegypt*,
and the Vauls like that Rock
wherein *Alexander* and *Darius*
wrestle for Mastery in a Valley in
Persia, between *Babylon* and *Es-
sahan*, at a place called *Carimonsta-
han*,

Italy, where formerly was a great City six English Miles long, in which Grotto, the Alexander-like mind of the Sculptor, hath Hewn within the Rock, (besides Alexander on Horseback, and a number of Huntsmen and Ladies) the aforesaid Alexander and Darius wrestling to break a Ring between them.

Such a like mind Prince Thomas of Savoy, (Sonne to the Great Emmanuel of Savoy) infused into his Architect, Sculptor, and Caster in Brasse, who he imployed in the Designing and Building a Stable in Turin, within all of Marble, the Racks, Manger, and the upright Posts all of Copper, Richly Wrought, Conveyances of Water Pipes. The Manger fourteen Inches wide at the bottom, to contain a Pale for Water on all Occasions. The uppermost edge of the Manger

Manger three foote eight Inches high from the Ground, to accustom the *Neapolitan* great Saddle-Horse to raise their Neck. The Rack Poles three Inches asunder and upright, that as the Frenchman saith, (*L'appetit vient en mangeant*) the Horse may feed more chearfully, the Hay and Dust may not fall on their Heads, as it doth out of a Rack which stands shelving: the under part of the Manger ought to be made up to keep in their Littres, and no Boxes made there for Dogs, as some not curious do. where no Harnesses, Saddles, Coverings of Horses, or any other Implements or Tooles, are not to be seen about the Postern, since those things do but impede the Access of a Cavalier to the Horses.

The disposing a Stable into a double Range, hath been affected by

by some, who would see all their Horses at once.

Others love only a single Range, with a broad Walk, and if they have a great number of Horses, returne at the end into another Range, if the Ground can afford the same, so as a Wall makes the Partition between the Horses.

The Paving of such a Stable is very neat, being of white or yellow (twice burnt) *Flanders* Bricks, in *Dutch* called *Glinkart*, farre beyond Planking of Stables, for divers Reasons. The Paviers (after the Bricks are laid) throw sharp Sand over them, and twice a day they are Watered with a Gardeners Watering-Pot, and Swept with a Broom, which the Grooms are to continue sometimes, because the Sand gets between the Joints, and makes the Paving very close and firm. The Pavement

ment at the Foot of the Manger, must be raised at the least six Inches higher, than at the Gutter where the Posts are placed, which ought to be five Foot and an half distant one from the other, which Ground so Paved is of double use; first, that the higher a Horse stands towards the Manger, the better sight it is, and especially when the Lights of the Stable strikes on the Horse their backs, which is the better Light.

Secondly, That a Horse its usual standing place being so much shelving, accustomes the Horse (reposing more on his hinder Feet than on the foremost) to be more light and nimble in his Gate and Pace.

Thirdly, That his Stall doth not remain under him, and especially when its standing hath eight foot in length from the Manger to the Channel

Channel, which for neatnesse ought to be above Ground, the eight Foot in length, being at full the space which the Horse doth possess when in the night time he lyeth streight on his Litter.

I must not omit by way of Queries, to Write somewhat concerning the Kitchen of a Princely Palace, viz. Whether there should not be as much curiosity, if not more in the Kitchen than in the Stable, since the Meat prepared in a Kitchen, ought to be Drest with all Neatnesse, and preferred before a fine Lace about the Master Cooks Towel: Neither are the Vessels of Silver but in reference to the Neatnesse which ought to be observed in all Cookery. The French Mans Glasse is novrenched as often as he Drinks, and why should not Cooks be more Curious and Neat in their Kitchens,

Kitchens, than Grooms in their Stables: And as a Stable can have conveyances for the Horses Water, so may Kitchens for Slabbering, for Guts of Fowls and Deer, Coles, Ashes, and whatsoever else can cause Dirt and Nastiness, and be freed from the annoyance of Smoak, which ill-placed Doors may cause; nor ought the Kitchen or other Offices and Selleridge, (as in some Palaces in *France*) to be so placed as they may prove prejudicial to the Court, and if they are underneath a Palace they ought to be vaulted.

I must not forget that the Roof of a Palace should be covered either with Lead or blue Slates.

The *Pantheon* at *Rome* was covered with Brass, which a Pope melted to cast Canons, no such as only can drink and sing.

No curious eye can well endure those
Kitchens

those Barn-like Roofs of many Noble Persons Palaces, covered with red Tiles, which break and rot away, and then the Roof being mended and patcht, seems to be a Beggars Mantell, which I would not have the Nobles and Courtiers to be. See the Roofs of *Lester, Newport, Southampton*, and such like their Palaces, whether they do not look as Barns for Hay, and not Py-bald, by their patched Tiles?

As for the main bulk of Palaces, its, true some have a greatnesse in plainnesse, as that of *Farvers* in *Rome*, whereof *Michael Angelo* made the *Arcitrave, Frize* and *Cornish*.

And as for Bignesse and Solidty, that of *St. Feropimo*, and *Escuriall* in *Spain*; for Ornament, *Munikch* in *Bavaria*; the *Lowver* at *Paris* for Vastnesse, Situation and Ornament, by the imposed Imagery on the

D

Front-

Frontispiece, variety of Orders of
 Colombs, with the delight of the
 annexed Taileries, wherein as es-
 pecially in that of the Palace of the
 Duke of *Orléans*, but above all in
 the Cardinals their *Vignas* in *Rome*,
 is observed the form of a true
 Princely Garden, consisting not
 only in much Air, great plots of
 Grass, low Borders, large Gravell-
 Walks, but for close Walks, Foun-
 tains, Groves, and Statuæ, to
 make good the Italian saying, *Per
 varias natura è bella*. And as for
 the imbossed carved Imagery on
 the Frontispiece of a Palace, their
 Dimensions must be according un-
 to their distance from the Ground;
 which is the main point requisite to
 be observed also in Scheames,
 wherein divers undertakers com-
 mit very great faults, not only by
 the not reducing whatsoever is re-
 presented to the true Lines of Per-
 spective,

spective, but also by omitting the giving such Proportions to things, as may satisfie the sight of all the Spectators at their severall distances; for Excellency doth not consist in vastnesse, nor in the quantity of Objects, nor Shapes, nor Colours.

The Sphear in an Angle of a great Chamber in *St. Pedro de Vaticano* in *Rome* confirms this truth, and every judicious Eye will be satisfied therewith. Seas must not only be seen to have a naturall motion, but heard to make a noise of breaking of their Waves on the shore, and against the Rocks. Cloudes must not only drive, but be transparent, Winds, Thonder, Lightning, Rain, Snow, and Hail, must be so heard, seen, and felt, as that Spectators may think those sights to be naturall operations. The Sun, Moon, and Stars, no Past-board devices,

but so represented, as that they may dazle the Eyes of Spectators. And all the Motions of Sceans and Mutations as insensible, and no more to be discovered, than that of the Hand of a Dial.

Neither can all great Rooms of Princely Palaces serve for this use, except they be after the Modell of such as the Italians have built, as there is a good one at *Florence* in *Italy*, with conveyances for Smoak, and capacities for Ecchoes, which *Inigo Jones* (the late Surveyor) experimentally found at *Whitehall*, and by his built Banqueting House, so as having found his own fault, he was constrained to Build a Wooden House overthwart the Court of *Whitehall*.

The greatness of a Sovereign consists not in the quantity of Stone and Timber heapt together, The Quarries possess more Stone, and the

the Woods more Timber than a Banquet Room. Let any good eye judge, whether it be not true, that the extream height of a Room takes not away the greatness of the company that is in the same, and that all Hangings of Tapistery make no shew at all, unless they reach to a proportionable height of a Room.

Since the greatness of a Nation consists not in a Husk, but in it self, and in its Sovereign, nothing should be suffered to diminish the appearance of that greatness within or without Doors. A Sovereign and his Retinue, in a too vast Roome in height, width and length, doth appear like a company in a Valley near high Mountains. Whenas a body standing on the brow of a Hill, and seen from below, seems to be a kind of *Colosse*, which argueth that there must be a great discretion used in the making them fit and pleasing.

All

All which I do not Write to undervalue any Modern Works, nor any of the Cavallier-like *Operas*, every good Talent being commendable. As I am confident there are some that live, who will not deny that they have heard the King of blessed Memory, graciously pleased to avouch he had seen in *Anno* 1648, (close to the Gate of *York-House*, in a Roome not above 35. Foot square,) as much as could be represented (as to *Sceans*) in the great Banquetting Room of *White-hall*; and that divers judicious persons will not deny, that the excellency of the several Triumphall Arches erected in the City of *London*, consists not in their Bulk.

The *Grecians* and *Romans* (who have shown their Master-ship in them) did conform them to the respective places.

Things can be too great, as well

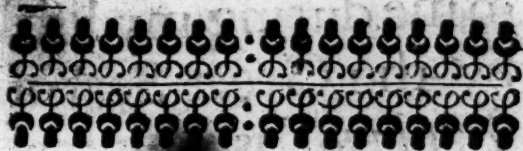
as too little, too massie, and too slender, too gaudy, and too plain; and Colours placed together, which agree not one with the other, as blew and green. God in his Rainbow having shewed us the best way of ordering Colours. Nor is it the quantity of Timber or Stone, that speaks love in an Arch, but rather when it is composed of the hearts of Loyal Subjects, which surpasseth all that can be made.

May therefore the oldest and most tottering House in the Land, breath forth of its Windows what may answer that true love, and in point of good Building, wherewith this Discourse is begun, (next to the giving such a new Form to the Streets of *London* and the Suburbs, as may in a manner equalize those in *Holland* in neatness, if the Inhabitants will but take the right and onely course therein.) May his
Sacred

Sacred Majesty during his long
 prayed for and wished Raign, see
 St. Pauls Church in that magnifi-
 cency, as the Motropolitan of the
 Houses of God, in the chief City
 of *Albion* justly requires. And his
 Royal Palace Built, so as to answer
 the matchlesse greatnesse of him,
 who all tongues of Loyal Subjects
 speaks to be *Carolus, Magnus, Se-*
cundum Dei gratia, Angliæ, Scotiæ,
Franciæ & Hiberniæ Regem, Eccle-
sia Legum, & Libertatis Populi Re-
stauratorem; Which shall ever be
 the dutifull Wishes of

Balibazar Gerbier

Douvily Knight.



TO THE
KINGS
MOST
Excellent Majesty:

May it please your Sacred Majesty:



Y place of
Master of the
Ceremonies
(which the
King your Royal
Father of blessed me-
mory, confirmed un-

A 3

to

The Epistle

to me during my life,
by the Great Seal of
England) is to intro-
duce Foreign Princes
or their publick Re-
presentatives to your
Sacred Prefence. And
in regard the Place of
Surveyour General
was also intended to
me (after late *Inigo*
Jones) I do make
bold to introduce the
three Capital Princi-
ples of good Build-
ing

Dedicatory.

ing to your Sacred Majesty, who hath seen more stately Palaces and Buildings, than all your Ancestors, and may be a Pattern to all future Posterity, by Building of your own Palace worthy your Self, and placing it as the *Italians* for their health, delight, and conveniencie (as well as Solidity and

The Epistle

Ornament,) *La Ma-
tini alli Monti, la Se-
ra alli Fonti,* accord-
ing to which the main
body of your Royal
Palace may be set on
the side of *St. James's*
Park, and the Gar-
dens along the Ri-
ver.

If the Book affords
any thing worthy
your Sacred Maje-
sties further satisfac-
tion, I have obtain-

ed

Dedicatory.
ed my end, and done
the Dutie intended
by ,

Your Sacred Majesties

Most humble, most obedient,

most Loyal Subject, and

most zealous Servant

Balthazar Gerbier,

TO

dedicated
ed my end, and done
the little intended
by

Your sacred Majesty

Most humble and obedient

most loyal Subject and

most affectionate Son


Bartholomew Goldier

TO



TO
Her Most Excellent
Gracious Majestie
THE
Queen Mother.

May it please your Majesty,

 I D I not hope
that the Offer-
ing up to your
Majesties gra-
cious hands, this Printed
discourse (concerning *Build-
ing*) might be acceptable,
it would doubtless make
me pass for insensible, how
your

your Majesty (immediately
descended from that great
Monarch, *Henry* the Phœ-
nix of all his Royal Prede-
cessors, and the Vertuous
Worthy of his Age, who in
all things made *Building*
worth a part of the employ-
ment of his heroick *Genius*.
Your Majesty imitating it,
as having inherited that
same clemencie wherein he
did excel, as in Greatness
all Sovereigns that ever
were, by graciously acce-
pting the very least mite
from any of his zealous
Subjects

Madam,

Madam, This is a kinde
of Attome, in comparifon
of other Presentations; nei-
ther do I prefume to think
that it fhould be reflected
on otherwife, left it fhould
feem to intrude it felf as a
Teacher to thofe expert
Persons, who have the ho-
nour to be employed in the
Survey of your Majesties
Buildings; but rather joyn
theſe my reflections to their
labour, for the due perfor-
ming of their undertaking,
which is onely the ends of
him, who (with Heart and
Soul) ſhall ever pray the
Al-

Almighty; to reserve for
your Majesty in his end-
less glory, a better Throne
than all the world can af-
ford; these are the devoted
wishes of,

Your Majesties

Most Humble, most obe-

dient, most Faithful and

most zealous Servant,

Balthazar Gerbier,

THE



THE
CONTENTS
OF THIS
MANUAL.

- 1 **A** Repetition of the summary Contents of a former printed Discourse, concerning the three chief Principles of Magnificent Building, to wit; Solidity, Conveniency, and Ornament.
- 2 The choice of a Surveyor, how to try him, and what his duty is?
- 3 The choice of a good Clerk of the works, and what he is to do?
- 4 The duty of all Master Workmen
- 5 The several proportions of the five Orders.

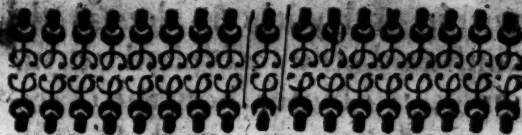
6. Par-

6 Particulars to be minded by
all Builders.

7 Rates and Prizes of Materials,
and of the several works belonging
to building.

8 That those who Build, or
Build not, will (as those who
marry, or marry not,) have just
cause to Repent.


Counsel



Counsel and Advise

TO ALL
BUILDERS.

*For the Choice of their Surveyours;
Clarks of their Works, Brick-lay-
ers, Masons, Carpenters, and o-
ther Work-men therein concer-
ned.*



Little Mannal which
I formerly set forth
(concerning the
three Chief Prin-
ciples of magnifi-
cent Building, viz. Solidity, Con-
veniency and Ornament) doth in
the first place note the incongru-
ities committed by many under-
takers of Buildings, who (both
B within

within and without doors) do confound the aforesaid Principles : It Notes how the *Grecians* and *Romans* (the best Builders) have proceeded on undisputable Rulers, not subject to fancies, for if men should be inflamed by Weather-cock-like-spirits to make their Buildings according unto things *a la mode*, especially of *Hats*, *Bands*, *Dublets*, and *Breeches*; how might workmen laugh? And would not some (who cannot jear without making use of Scripture) quote *Ecclesiasticks*; *He that is hasty to give credit is light-minded chap. 19 v. 4. And he that teacheth a Fool, as one that glueteth a pot-sheard together, chap. 21. v. 7.*

Secondly, It Notes how several great and judicious Princes and Magistrates have proceeded in their Edificies, what they have

have shunned, and what they have curiously Observed; the particular care of Surveyours, their choice of Materials, even to their preparing of their Lime and Clay: The care of their Bricklayers in laying of a Foundation, and that they have been firme and resolute in their undertakings to proceed on a well composed Modell, since Alterations in a well begun Building are very prejudicial.

Thirdly, It Notes the distinction between the well ordering of the Palace of a Sovereign, and that of meaner Habitations; and it cites some remarkable Structures, as that between *Babylon* and *Espahan*, at a place called *Carimonsharan*; as also several remarkable ones in *Europe*; It omits not the Description of Princely Stables, and the neces-

sary Offices to their Palaces, (as well as rooms of State, for great Festival Shows, and ordinary use.) It also points at several incongruities committed by Surveyours; and who minded more to show that they were skill'd in describing of Columes, Pilasters, Cornishes and Frontispices, (though for the most part placed as the wilde *Americans* are wont to put their Pendants at their Nostrils) then to have studied Conveniency, and what most Necessary.

I shall now in the following lines treat more particularly on the matter by way of Counsel and Advice to all *Builders, &c.*

Whosoever is disposed to Build, ought in the first place to make choice of a skilful Surveyour, from whose Directions the
several

several Master-work-men may receive Instructions by way of Draughts, Models, Frames, &c. For the better managing their intended work, since an ill built Palace leaves a perpetual reflection of Ignorance on the Builder; whereas a compact Building, whether City, Castle, or House, like a stock of Children continue the Name and Memory of the Owner.

An Exact *Architect* must have *Surveyours*, the Art of Drawing, and Prospective; ought to know what appertains to each Inhabitants Conveniency: Since there is a vast difference between the House of Prayer, and a Princes Palace, and meaner Habitations, nor is a Laboratorium for a Chymist fit either for Baking, or Brewing.

Therefore he ought to know *Prospective*.

wherein is the use of Prospective, otherwise he will never rightly describe the demensions of solid Bodies, which are to stand high; his Circles will seem Ovals in Breadth, and his Ovals Circles, and all his contrivances will be at randome; as it is said of some men, who first act, and afterwards consider, excusing their mistake, which they thought it otherwise.

What to reflect on.

The Surveyour must in the first place consider the ground whereon the Building must be Erected, make a Distinction between a Plat in the City, and one in the Country; and then governe himself as the ground will give him leave; reflecting still on the Houses adjacent, and those which are opposite, if they be high to raise as high, if not higher, to prevent the smoaking of Chimnies.

Se-

Secondly, He must place the Front of a Building in the Country towards the East, if the place giveth leave; by which means he may shelter his double Lodging Rooms from the North-west: He must cause all the back of his Stone work (which stands within the Brick) to be cut with a Rabar three Inches broader then the breadth of his James and Cornish; which will hinder the Rain (driven by a fierce North-west wind) to pierce in to the inside of the Wall, and through the meeting of the Brick-work and Stone; whereunto the Morter affords the passage of the Water. It may be some will carp at this free Expression, pretending that Surveyours and Master Workmen (in this refined Age, which abounds in Books, with the Por-

The Seat.

A Nota Bene to Builders.

tructures of the Out and Inſide of the beſt Buildings) are not to ſeek the firſt Points of their Apprentiſhip : Whom I aſk the reaſon, why modern and daily Buildings are ſo exceedingly Defective? And whether it is not be-
 cauſe many of them (if well conſidered) have been but Apprentices lately, and too ſoon become Journey-Men; And that Surveyours (who either affect more the Building to themſelves a ſtrong Purſe, or are blind in the faults which their Workmen commit) like careleſſe Poſtillions, haſten with the Packet-Maile to the Poſt Office, be it never ſo ill girted, whereby it oft falls in the mid-way.

The Count of *Villamediana*, a rare ſpaniſh Poet, having heard the Answer of a Sonnet of the King of ſpaines Surveyour (to whom

whom the Office of the Surveyour was confirmed, by reason he had all the Drawings and Books of his deceased Father; and to excuse his young Experience, said, to make use of them) replied to the young Surveyor, *Hazais come el Stomaco que coma herbas y caga Mierda.*

The Count of Villemediana his witty expressions concerning a young Surveyor.

The readiest way to try a Surveyor, is to put him to draw a ground Plot in the Builders presence, to make him describe the fittest place for a Seat, the ordering of Rooms for Summer and Winter; to Contrive well the Stair-cases, Doors, Windows and Chimneys; that the Stairs may stand conveniently to the Stories, Doors and Windows; so placed, as that they may not be inconvenient to the Chimneys; the Bedstead place far from Doors and Windows, and

How to try the capacity of a Surveyor.

and of a fit distance from Chimneys.

Distinction
between the
height of
ceilings of
Rooms.

And as for height of Seilings, the Surveyour ought to make a Distinction between the height of a House, or Town-Hall; of a Colledge and that of a Church, the Hall of a private house, serving for the most part but for a passage, the others for a Receptacle of a whole Body (consisting of number of Persons) who for an hour or two joyntly breath in one place, and the which may be Offensive.

Natural
Effects of
Air.

Nature of Air being to ascend, and when it meets (with a sudden opposition it spreads; Since the Nostrils (as the Pipes of Bellows) will attract to each Persons Brains the scent which is composed of that Steam.

The Surveyours skill and discretion will also be discovered by

by the well contriving of the respective ceilings of common Rooms, and Closets for private use; For as Rooms of State ought to be of an equal height, the ceiling of a Closet (ten foot square, less or more adjacent to a Bed chamber of State (which may be thirty foot wide, forty in length, and sixteen or eighteen foot high) would be preposterous, inconvenient, and like a Barbers Comb case, Staircase, and Steeple-like to hang Bells in.

A good Surveyour sheweth his Art, both within the Building, as on its Front; and in the fit mixture of Materials, Mortar, Brick and Stone, being sympathetic stuff.

As for the manner of the Outside of a Building, there is a necessity for mouldings about
 Necessary for mouldings.
 Win-

Windows, and Door Frontispieces, or Cornishes, none about Barns, Malt, Brew, or Glass-houses; whereof the outsides (especially a Barn) hath no opening of Windows, so as the Rain and Droppings of the Thatch falls not in them, but onely on the ground. But as for Cornishes and Frontispieces over the Windows of a meer Habitation, being to it of the same use, as the broad Brim of a good Hat is to a Traveller in a rainy day.

Ornaments; The good Surveyor will order Ornaments to the Front of a Palace, according unto its situation; shun too much carved Ornaments on that upright; whereas the Southerly windes raise much dust; And though the *Italian* saying maintains, *Per tanto variar Natura è bella*; Yet must the good Surveyor use

use moderation in the ordering of Ornaments; shun in the first place, those Spectacle-like cant Windows, which are of Glass on all sides; For it may be supposed that the Inhabitants of such Houses and Rooms with Cant Windows (exposed to the Northwest) may well imitate a merry *Italian* Fisher, who (in a Winter windy, rainy day) had been stript to his skin, and having nothing left to cover him save his bare Net wherein he was wrapt) sitting on the high-way) put his finger through one of the holes, asking to passengers what weather it was without doors.

Bay or cant
Windows
Inconveni-
ent.

The expert Surveyor will re-part the Windows to the front of a Palace, that they may (besides the affording of sufficient light to the rooms) leave a solid

How Win-
dows ought
to be placed

Ridiculous
Ornaments.

solid peeres between them and to place some pleasing Ornament thereon, not prejudicial to the Structure, nor too chargeable for the Builder; shunning incongruities, as many (pretending knowledge in Ornaments) have committed, by placing between Windows Pilasters, through whose bodies Lions are represented to creep; as those in *Queen street*, without any necessity, or ground for the placing Lions so ill, which are commonly represented but as Supporters either of weight, or of Arms in Heraldry.

The Order
to be observed on the
Front of
Buildings.

He ought further to imitate the old *Grecians* and *Romans*, in placing the rustick order next to the ground, as being most proper, both by reason it is the most solid of all the other orders; and that no blemish appeareth in the
Rustick

Rustick so soon as in a smood ashler.

The reason also for contracting the Balconies within the upright of a Column is, that weight is not prejudicial when it rests on its Center, no more then the great weight of Bels in a Steeple, if hung plum with the upright.

Concerning
the placing
of Balconies

Moreover, He orders his top Cornish according unto the the weight which is laid upon it; For if the Builder (to spare charges of Rails, Barresters and Pedestals with Ornaments of Balls) will have the Building to have no other finishing, he must lay a course of Stone on the Cornish, to keep the Walls dry, and clap up a fillet of Lead: As good Carpenters do frame their Rails to Barresters to meet on the Pedestals, under the neck of the

Concerning
the upper
part of a
Front with-
out Rails
and Barre-
sters,

the Ball, so as the Rain doth not enter to rot them.

The use of
Prospective.

A Surveyour (well versed in prospective) doth order the Cornishes and Ornaments according unto the height of the Stories: He ought to know what Diminution, Altitude doth cause; there is none perceived on the Latitude of an Horizontal Line: Longitude represented by lines drawing to a Center from the Latitude, causeth also a Diminution in the Eye.

The *Grecians* and *Romans* Surveyours, have ever been accustomed to make their Cornishes and Ornaments about Windows, of the upper Stories to be bigger then on those of the lower; which *Michael Angelo* did observe in the Architrave; Freese and Cornish on the top of the Frontispiece of the Cardinal

Farnese

Farnese his palace in Rome.

Raphel d'Urbis and *Albert Dürer*, drawing a Steeple on the first ground of a board or cloath, whereon they did represent the figure of a man, standing (as it were) in the upper gallery; made the figure of that man of the same height of another which was to be set at the foot of such a Steeple; because there is no diminution of forme on a perpendicular Line, which is set close to the edge of a cloath or board; A point at the foot, or at the top, is but a point, it being only distance from separated lines (drawn to a Centre) which causeth a Diminution as to the sight.

*Raphael and
Albert Dürer,* their
method in
Dimentions

Therefore all Surveyours ought to cause the wooden Molds (on which Masons must work, to be tryed by lifting
C them

them as high as the Stone or wooden Figure is to be placed ; to see how it may please the Judicious Eye ; which is the best Jury and compass.

What form
of Doores,
prove a
weakening to
a Building.

Now concerning the well proportioned Doors and Windows ; Every man reflecting on Stature, ease and conveniencie needs not to call to his Neighbour for to counsel him in this necessary proportion, since it must be granted, that if Doors and Windows (in a solid Building of Stone or Brick) were as wide as they are high ; it must through necessity be a weakening to a Building.

The wideness of the Door, must be to serve for two to pass at once, that is to say, the Doors of Chambers of a Pallace, the height of the Door the double of its width ; all other Chamber doors

doors of a convenient height for a man of compleat stature, to pass with a hat on his head: A gate for Coaches and Carts laden likewise fit to the purpose.

Windows (because the light comes from above) must be higher then wide, the middle Transoms of them above six foot (which is the common stature of a Man) since otherwise the middle Transome would be opposite to a mans eye, hinder some to the free discovering of the Countrey.

Why Windows must be high.

The leaning height of the Windows ought to be three foot and an half; since if otherwise it will be incommodious, for being lower, it would require the bending of the back, which old men (when they have spent money and time in building)

The leaning height of windows.

C 2 will

will not find so easie, as some wanton persons, who it may be will affect low leanings, to make use either to sit on, and break the Glass windows, or to shew themselves in Quirpo to passengers.

The height
of windows.

The height of Windows and Doors, must be as much again as they are wide; because they will otherwise offend the judicious eye of persons who reflect on the former annotations, that shapes do alter by distances of place; as an Oval seen from beneath, will seem to contract to a Circle; contrary to the sense of some Children, in whose sight their Parents seem extream tall, because they are low themselves; But some Builders, (as Painters of a low stature) affect to make Figures, door-ways, and Windows, according unto their own height. A

A good Surveyour shuns also ^{Thresholds} the ordering of Doors with ^{an old cus-} Stumbling - Block - Thresholds, ^{stome.} though our forefathers affected them, perchance to perpetuate the ancient custome of Bridegrooms, when formerly at their return from Church, did use to lift up their Brides and to knock their heads against that of the door, for a remembrance, that they were not to pass the threshold of their House without their leave.

The doors ought to be all on a row, close to the Windows, ^{The placing of} to gain Room, that when the ^{Doors.} doors are opened, they may serve for Skreens, and not to convey wind to the Chimney.

The Hearth of a Chimney ought to lye level, without a border, raised hearths being dan-

The incon-
veniency of
raiſed
hearths to
Chimneys.

The uſe of
ſpaces be-
tween the
Chimneys.

Roomes on
moiſt
ground to
be paved.

gerous for the falling of coles on the boards, and likewise troubleſome.

The Chimney mantles ought to be all of Stone or Marble, but if (to ſpare charges) the upper frame, ſides and top be made of timber, it will be moſt ſeeming to have them painted as Marble.

And if the building cannot ſuffer the Chimney to be made even with the upright of the wall, both ſides may be made up to ſerve for hoards, if they are roomes of State, but if of common uſe for Cabinets.

It is neceſſary to cover the top of Chimneyes to keep out raine and Snow; the ſmoak-holes can be very conveniently made on the ſides of the heads of them.

Roomes on moiſt grounds, do well to be Paved with Marble, becauſe the boarding otherways

is

is much subject to rot.

A good Surveyour shuns the making of Timber partitions in the undermost Story.

No Timber partitions to be suffered in the first

He contrives free accessse to the double roomes, without making them through passage whereunto the well placing of the Staires contributes, either by convenient passages about or under them; the composing of a fit and easy Staires being a Masterpiece, fit in respect of the place, convenient if the steps be deep and Low in the rise, for a straight ascending or descending (without bending of the sinewes) gives most ease to the body which doth rest better on his bones, then on Sinewes.

Deep and low Steps the best.

The good Surveyour doth contrive the repartitions of his ground-plat, so as most of the necessary Servants may be lodg-

ed in the first ground story; whereby there will be less disturbance, less danger of fire, and all the Family at hand on all occasions.

Finally, he ought from time to time to visit the Work, to see whether the Building be performed according unto his direction and Moulds,

The second choise to be made, is, that of a fit Clark of the Works.

A Clark of the Works must be vers'd in the prizes of Materials, and the rates of all things belonging to a building; to know where the best are to be had, provide them to the Workmens hands, to prevent a retardment in their several proceedings;

ings; that the Carpenter may not stay for the Brick-layers, nor the Brick-layers, nor Masons for the Carpenters; he ought also to note in his book the materials, and all necessaries as they are brought in, distribute them orderly; and though Nailes to some seem not very considerable, yet ought the Clarke of the work to be discreet in the distributing of them to some Carpenters, whose pockets partake much of the Austruches stomachs; his eyes must wander about every Workmans hands, as on those of the Sawyers at their Pitt, that they waste no more then needs in Slabs; on the Labourers hands in the digging of the Foundations, for the Brick-layers that all the loose Earth be removed, and Springs observed.

That

That no Car-men turne or tumble down their Bricks, but the Labourers to take them out of the Cart, and pile them to prevent damage.

To ſuffer no ſammel Bricks to be made uſe of, not ſo much as in the choar of a Foundation.

Concerning
Brick-layers.

The Brick-layers to lay no Foundation except the ground be firſt Ram'd, though it ſeeme never ſo firm.

Obſerved in
the foundation
of Solomon's
Temples.

No great and ſmall ſtuff huddled together in the Foundation, but laid as even as poſſibly can be, to ram it the better, and the more equall, and muſt be of ſolid hard ſtuff, with no concavities, daubed over with ſtore of Morter, which ſinks unequally, and is the cauſe of the unequal ſetting of the Work.

Likewiſe to watch the Brick-layers hands, to uſe often their line,

line, and plum-rule, make small scaffling-holes, and never (if possible be) suffer them to begin their Scafflings in the morning, but before their leaving off their work; for if in the morning, most of them will make it a day of gathering of Nuts and Fruit (if they are in the Countrey) and therein spend the best part of their day; and one must not permit them to take the best boards and other stuff for their Scafflings.

No making
of Scaffling
in the mor-
ning.

Item, See the Morter well tempered, since if unequall in thicknesse; that which is thin, will cause the work to settle more in one place then in the other, and the joynts to spue out the Morter; especially of work made at the latter end of the year, when no brick-work without doores ought to be laid, for that

Concerning
Morter.

that it hath not had ſufficient time to dry thorowly; and will therefore by the ſetting of the work in the after-ſeaſon, be ſo much the more retarded, and be the worſe to the Building, Hangings, or Wainſcot ſet up againſt it.

Moreover, to ſee the Brick-layers take good ſolid Bricks to hue, ſince if any thing ſammel the work will molder away; and every night to lay bords on their work to keep it from raine.

Concerning
Maſons.

It is to be noted, that the Maſon muſt work no Stone with Sandy veines, or that which (having been new taken out of the Quarry) hath been expoſed to Rain, Snow or Froſt.

As for the workmen, that muſt obſerve exactly their Surveyours Molds, and work cloſe and neat joynts, uſe but little
Morter

Morter between them, not only because much Morter will be washed away, but that Cornishes will also appear as a ranck of open teeth, and they must not forget to shoare the middle part of the head of the Windows, as well as the sides, to prevent an unequall settling of the work, and consequently cracks, both in the Heads, James, and Sils.

As for the Dimentions which the Masons are to observe in their work, in reference to the orders. They must divide the Tuscan, Column, or Rustick, Base and Capital (which is as much to say as feet and head) seven times its thicknesse, the Architrave, Freeze and Cornish one fourth part of the Column with Base and Capital.

If they make the said order
without

without a Peđeſtall they muſt divide its whole height into 17. parts and a half, which (in their vocation phraſe) are called Models, and are divided into 12. equall parts; If they are directed by their Surveyour to make them with a Peđeſtal, then are they to divide the whole height into 22. and one ſixth part, for that the perfect ſhape of the ſaid Order requires a Peđeſtal, which muſt have a third part of the Column, with Baſe and Capital.

Nota.

It ſeldom happens that a Peđeſtal is put to the Tuſcan Order, becauſe (as it represents an Atlas) and that no man will take a Dwarf to reach to the firſt Story of a Building) the ſaid order requires, not to be ſet as a Candleſtick on a Cubbert, its as a Subſtantive, that can ſtand without an Adjective: Some

modiv

Venetian

Venetian Ladies, must have their Shoppins to stand on, and were they as strong as the *Tuscan* they would not need some of their *Masaras* to lean upon.

But as for Pedestalls to the other following orders; a Builder shall do well to see the *Masons* observe this general Rule; That the Pedestalls with their Ornaments, must be one third part of the Column with its Basis and Capitall (feet and head as aforesaid) even as in the Ornaments above the Architrave, Freese and Cornish, must make one fourth part of the same.

Dimension
of all Pede-
stals.

This must then be understood as followeth, viz. The *Mason* must in the making any of the Freese orders, divide the height of the Column with its Ornament into nineteen parts, then take the height of the Column with its Basis

Basis and Capital, and make the divisions of the Models according to its order.

Names of
the severall
Forms or
Moldings
on the body
of the Co-
lumn.

Now the names of the severall formes on the body of the Column are, *viz.* theinging over of the Capital under the neck; Then followeth the Freese, the List, the Ovolo, the Cimatium, the list of the Cimatium, the Architrave, the list of the Architrave, the Freese, Gul or Throat, the lists, the Crown, the lists or Rule, the Round, and finally the Ovolo. And the Clarke of the Works speaking in these termes, will be as well understood by the Mafons as one at Sea among Mariners; saying, Steere, or Larboard.

Concerning
the Dorick
Order.

Item, If the front of the Building is adorned with the other orders (as the Dorick is) to follow the Tuscan, this proportion must

must be observed, viz. The height of the whole Column with its Base and Capital, must consist in 20. Models, that is to say, a Dorick Column without a Pedestall; the Modell must be divided in twelve parts, the foot with the nethermost band must be one Modell, the Column between the Foot and Head 14. Modells, the head one. The Architrave, Freese and Cornish, is to be one fourth part with the Head and Foot, so as this makes up the aforesaid Number, and such a compleat Form, as is neither to be controuled nor mended, & is that which the *Grecians* and *Romans* have found to be a Dimension sunk down from above, as all those who have made it their respectfull observations of the Dimensions the Creatour hath been pleased to give to the

clb D Micrc-

Perfect concordance among the dimensions of a mans body.

Microcosme Man, they have found that there is a perfect concordance, amongst them, a Body consisting of so many Modells of so many height of Heads; A Head of so many distances between the one Eye and the others; nay even in the gaping of a well-proportioned Mouth, except forced by a kinde of Screw or Gagg, which may break the Jaw-bones asunder.

Proportion of open galleries with Columns.

If the undermost part of a Front (as many Palaces in *Padua*, and other Cities in *Italy*) is left open as the Gallery in the *Bedfort-Piazza*; The Indisputable, best and truest proportion to be observed therein is; if according to a Dorick Order, the Height must be divided into twenty parts, one of those must be the Model; the distance between the two Pilasters are three Models

dels, the widenesse of the Arch, half the length of the Column, which is set out in the midst of the Pilaster, one third part of a Model more then its half, which is to be generally observed in all the other orders; This is for Galleries with Columns without Pedestals; but Galleries, with these the Column must be divided into twenty five, and one third part which makes a Model; the breadth of the Pilaster must be five Models, and the distance between the Pilasters ten Models, the half of the height of the Arch, which will make that perfect shape as must satisfie all Judicious Eyes. • *Item*, It must be remembred that the height of the Pedestal of the Dorick must consist of five Models, and one third part : And as for Ornaments (as Imbrodery or Lace on

good Stuff) they are as various as the occasions of the owners may require, or those things whereunto their Genius doth tend; if Warriours, Trophies; if men of Peace, Olive-branches; and all what affrights not.

Division of
the Ionick
Order.

The *Ionick* Columns, their height must be of twenty two parts and a half; each Model being one of the twenty, must be divided in eighteen, because it stands so much higher, as distance (which then contracts the work) requires more height; since otherwayes the third story of Columns would shorten so much, which is the fundamental reason that Prospective must be observed by a good Builder, and not yielded to the particular fancies of some of them.

The Architrave of such a Column

lumn must consist in one, and one quarter Model of the eighteen, the Freese of one and a half, the Cornish one and three quarters, which being added together, makes four Models and an half, and the one quarter of the *Ionick* Column, the Base and Capital comprized.

In the making Galleries of this order (which being most slender and more tall) the breadth of the Pilasters must be three Models, the breadth of the Arch eight and a half, since the height must be seventeen Models, which is twice the breadth; but if these Columns are set on Pedestals, then must the whole height of them be divided into twenty eight parts and an half, allowing six Modeles for the height of the Pedestall with its Ornaments, and so it will fall out, that as the

breadth of the Arch shall be eleven Models, the height twenty two, the breadth of the Pilasters four, and so a proportionable Body to the height of the Story, and the weight it is to bear; which is one of the main considerations of a good Builder; when to the contrary, Columns ill proportioned and ill placed, prove often a weakening to a Building, and seem as Organ pipes to stand in the Ayre for a shew, as Cornishes too broad, happen the sooner to decay; but to this order there ought to be one third part of a Model.

Ill effect of
two broad
Cornishes.

To proceed on the form recommended to a good Clark of the works, to call upon every Workman of the Masons to see them performe according unto such exact patters made in good Wainscote; The next is the

Which
doth not
shrink.

the Corinthian, who if without Pedestals, must be divided into twenty five Models, and those into eighteen parts; the distance between the Columns four Models, and two third parts of a Model; Because the Architrave about it may not bear too much, and that the Models in the Cornishes may be just over the middle of the Column.

Divisions of
the Corin-
thian order.

But if Arches or Galleries made of this Order; the distance between the Pilasters must be nine Models, the height to the top of the Arch eighteen Models, and the breadth of the Pilaster three Models: Galleries with Pedestals must be divided in thirty two equall parts, and one of them a Model; the distance between twelve and the height to the top twenty five, one more then ordinary,

because the height doth diminish the proportion of its true height; to the Pedestal seven Models, &c.

Composite
Order.

The Composite Order must be made of the same proportions of the Corinthian; all the difference between them is only in the members of the Head and Foot, as all Surveyours and Master Workmen shall finde this to be most true; After they shall have compared all the best grounded Authors of the *Greeks* and *Romans*, and that here is not an *Iota* differing from them; for it is a Rule as certain, as that without the same, there cannot be a perfect building made, no more then a man could without good Orthographie write true English; so as no man can have just cause to say, there is a new Rule prescribed unto them, since
it

it is the same which will be found in all true Books concerning that matter; It is the Rule of the Ancient Masters, whose Reliques to be seen throughout most places of *Italy*, makes many strangers that come there gape so wide, as that they need no Gags. Let them but look on the Columns of the Temple of Peace and the Pantheon in *Rome*, they shall see more men that gape after them then in other parts: Pipers and Potters to sit in Tavernes, and they shall finde in those lovers of Art an Humility, as hinders them to crack, and boast never to utter, *Well enough for the time.*

Most of the *Italians*, being of the humour of the old Carver, who had ingraven his own Name and Portraicture so deep in the shield of *Pallas*, as it could never

never have been put out without defacing the figure; they work for a perpetual fame; which a good Clerk of the works is to recommend unto the Workmen committed to his charge.

Concerning
the Car-
penters.

That the Carpenters be good husbands in the managing of the Builder his Timber, in the cutting of their Scantlings, their sparing to make double Mortises, which do but weaken the Summers.

To lay no Gerders, which are needless and hinderſome to the boarding of a Room, no Summers to be laid, except the ends of them are either pitcht or laid in Loam, to preſerve them from rotting, as is done by the heat of Lime whereof Morter is made; And therefore in *Italy*, *France*, *Germany*, and among the moſt prudent and ſolid Builders, the free

free Masons put stone Cartoefes in the top of the inside walls, which are bearers to the Summers, as such Cartoefes are seen in divers Churches, and some of them are carved in Ornamental Figures.

Item, The Clerk of the Works must have a care to see the Carpenters to cock the main Beams into the Lentals, to hold the wall the better, that they pin down a Plank (three inches thick) all along the top of the Summer, to hold fast the Brick work, after the Brick is raised to the height of the Summer, and that the Joyces be framed 2; or three inches under the top of the Summers; that for the boarding rooms smooth, the Carpenters lay Bridges overthwart the Joyces, joyned in the top of the Summers, that the Boarding
be

The manner of the Carpenter to lay his Timber.

be with breaking Joynts, which is the phrased of the Workmen and is the manner of flooring of roomes of Note.

Height for
Doors and
Windows,

That doore cases (well ankered into the wall) be made as high again as they are wide, and so must well proportioned window cases be, both for giuing better light (which descends from above) and that the peeres of Brick or Stone between them, will fall to be a fit width to be a strengthening to the building.

Item, The Clarke of the works must be very carefull not to suffer the Carpenters to lay any Timber under the Chimnies; since by the laying of Timber under them, many houses have been set on fire and burnt to the ground.

He must see the Carpenters to observe

observe the Scantlings following, viz. (for substantial Floors of roomes thirty foot wide) Summers for the first seeling eighteen and fourteen Inches to be framed in such proportion as may serve to make an *Italian* fret Seeling. The Lentals eight and ten Inches square, the Joyes nine and three Inches; The Summers of the second Floor, fifteen and seventeen, to be beams of the Roof for the principal Rafter to stand on, and the like for the fret Seelings: The principal Rafter for the Roof to be at ten and eight at the lower end, nine and seven at the top; The Purlains for the Roof nine and eleven, single Rafter six and three Inches, and to be framed edge-ways, which Scantlings are fit for substantial Structures, but not usual

Scantlings for substantial Floors.

Scantling for Seelings of rooms thirty foot wide.

ſual in Lime and Hair Birdcadge-like Buildings ; Moreover he muſt not onely (as a true Clerk) with his Eyes follow the Workmens hands in the framing of their Work, and as before ſaid, that no waſte be made of the Timber, nor of the leaſt Slab, nor of Brick, nor Brick-bats, nor Stone ; he muſt not ſuffer Brick Carts to overturn the load of Bricks brought to the Work, which is an inſupportable abuſe, but too often committed in the Countrey, whereby a world of good Bricks are reduced to morſels, and this by meer laſineſs of the Labourers, who (as better rationals in *London*) ought to take the Bricks out of the Carts and pile them.

Abuſe committed with the overturning the loads of Bricks.

And as to a Building wherein divers ſorts of materials are uſed, the care of the Clerk of the Works

Works must be on all of them, as well as on the least (as I said before in the distribution of Nails) as on materials of weight, as Sauder, wherewith an unconscionable Plummer can ingross his Bill. The Clerk is to see Sauder weighed and well managed, and in the attesting of Bills have a care not to pass his eyes slightly over them, lest when a Plummer sets pounds of Candles used about his Sauder, that trick prove as insupportable as that of one, who having played away a round sum of his Masters Stock in a Journey to the *East. Indies*, set in his Bill to have payed a hundred pound for Mustard.

He must likewise have a clear insight on the Glass pains of the Glasier; suffer no Green pains of Glass to be mixt with white.

He

He must with his Eyes follow the Measurer of the Work, his Rod, or Pole; so the line where with the Joyners work is measured, that it be not let slide through the Measurers fingers since the Joyners works hath many goings in and out; and a *Leger de Mayne* may be prejudicial to the paymasters purse.

It were likewise better to agree with Painters, to have their work rated on running measure, and on the straight, as the Carpenters work, who (being of an honest *Josephs* profession) are as deserving to be well paid as the Painters, who do but spend the sweat of Wallnuts (to wit oyl) the Carpenters that of their brows.

Finally, the Clerk of the Works ought to be subject to the censure of the Surveyor, on the

the point of all the materials which are brought in.

And as for Noblemen (or others) who have Timber of their own (and in whose grounds good clay for bricks is to be had, their best course is, to sell Timber (which they can spare, and intend to build with,) some years before it must be put to the Carpenters tools.

Concerning
the use of
Timber.

Likewise to manage the disposal of the Timber. And as for the foundation of their building, it ought to be raised at first leaning height; and then to let it rest to settle, for if onely brought level with the ground, it will prove but as a receptacle of the wet that falls on it: and if but a foot high above ground, it will be pushed down again, but being leaning high, it will be preserved, and may be covered

Concerning
Foundations.

E

if

if the moneth of October draweth on, when it's fit Trowel men should be dismiss till the next Spring following.

Item, To cause the foundation of the intended building to be generally laid, without leaving any touchings, since walls new begun on them will settle more unequal then those carried on in an intire range: As for coverings of Buildings, Lead is best for Churches, for who would rob them but *Goths* and *Vandals*.

The best
Covering.

Concerning
blew Slates.

Blew Slates are most comely for a Noblemans Palace, they are not heavy as Tiles, nor do not soon rot, nor gather an unpleasing moss, besides that when some of the slates are broke, the Slater mends them with little charge; a roof coloured with them is of an equall colour, when

when as red tiled rooffs the least breaking of them makes great chargeable work for the Tiler, who often removes ten Tiles to lay two new ones in their place; and renders the Noble mans rooff, as a Beggers Coat.

As for burning of Bricks, if Concerning burning of Bricks. Noblemen care not to make a Bisme in their Parks or grounds, they shall do well to cause the Clerk of the Works to look well to the Workers of the Clay, for if it be not well wrought, the bricks will never be good.

It is usual to pay five shillings per thousand, for the making and burning of Bricks, the Clay digging therein comprehended; and all materials being provided to the Brick-makers hand.

But as for those who can have

Between
burning &
buying of
Bricks, but
ſix ſhillings
and eight
pence difference in
twenty
thouſand.

Bricks from Brickills near at hand. And who love to keep their Park and grounds even and handſome, they may take notice that in the number of twenty Thouſand of Bricks bought or made, there is not above ſix ſhillings and eight pence difference; *Example*, There goeth four load of Sand, which (with the carriage) coſt two ſhillings ſix pence; in Straw to the making of twenty Thouſand of Bricks above five ſhillings; the Tools and bringing of water five ſhillings, the digging of the Clay ten ſhillings, charges for hedging, forty ſhillings; the preparing of the ground five ſhillings, beſides the making of a Kill, which will conſume for the making of twenty Thouſand of Bricks, fifteen load of Wood, at ten ſhillings the load; of
Bricks

Bricks burnt in a Clam (being burnt with Sea coals) there are at the least intwenty thousand, five thousand unfit for work; and though some Bricklayers pretend that Sammel Bricks are good enough to fill the Choare of a Wall, it is not so; Since most Sammel Bricks are no better then dust, and what resistance dust can be when weight is laid upon it, any rational man can judge by the several cracks in Walls, whereof the Choars are hollow; and therefore the description of the foundations of the Temple, and the Palace of *Solomon* bears, that it was made with smooth hard Stone.

The foundation of the Temple and Palace of *Solomon*.

Many Brick-makers are accustomed to dig the top spit (which is no better then dung) and to throw it with the other

E 3

clay

An Item for those who do let out ground for building. clay, and is the cause that many Bricks are brittle, so as in few years houses made with them, the walls thereof moulder away like dirt.

To prevent the being over-reacht with Bricks, they ought to be taken out of the clam by account from the Brickmaker, who undertakes to make them in ones ground, he is to keep to himself those that are not fit for use.

How to measure the Clay which hath been digged.

The way for the Clerk of the Works to measure the quantity of Clay which hath been digged, is to measure the pit (out of which it hath been taken) square, which is six foot square, six foot in length, three foot in breadth, and three foot in depth, which makes one thousand of Bricks.

Men dig clay for six pence the thousand.

Lime

Lime digged in ones ground iscommonly burnt in a Kill, at four shillings *per* load; Lime bought cost four shillings a quarter, six pence a Bushel, forty shillings a load.

Those that mind the making use of Chalk in their walls, must be contented, if the ground hath springs) with the green molding which breaks through the whited walls within doors.

Inconveni-
ency of put-
ing Chalk
in walls of
Houses on
Springish
ground.

Walls about a Park or Court, may be filled with Chalk, which may be digged for eighteen pence *per* load, bought for two shillings and six pence the load.

He that desires to know how many thousands of Brick a Park wall, or that of the building of a house will require, can make his account on the description following, *viz.* A square Rod of a wall, two foot thick

The num-
ber of
Bricks in a
square Rod.

E 4 takes

takes nine thousand of Bricks,
 nine quarters of Lime to a Rod,
 nine load of Sand, at fourteen
 pence per load.

Some good Country Brick-
 layers do work at twenty seven
 ſhillings the Rod, the Bricks not
 being rubbed.

The rate of
 Bricklayers
 work.

Good London Bricklayers
 will work the Rod for forty ſhil-
 lings, rubbed Bricks, the inside
 for thirty three ſhillings, arches
 comprised.

The fitteſt bigness of a good
 brick, is nine Inches and a half
 long, four and a half, and a half
 quarter broad, two inches a
 quarter and a half thick, which
 will raise a foot in the Morter
 with four bricks.

As for Lime, the refining
 whereof (according unto the
Grecian and *Roman* manner, is
 mentioned in the former prin-
 ted

ted discourse of the three Principles of Magnificent Building) the general custome in *Europe*, is to burn it in Kils, which is a slow way. But if there were such a quantity of Wood as in the *Indies*, there could be more lime burnt in twenty four hours, then otherwayes in a moneth:

The burning of lime in *China* and other parts of the *Indies*, being as followeth, viz. They make a round pile of great wood, leaving a cross hollow way through it from the bottom almost to the top, which is raised to a height according to the Circle, there is proportionably so much Stone heaved thereon as it will hold, the fire is put in the Centre, and in the middle of every cross way, and as it burns makes an Overture at the top, and the stone burning by degrees falls still

The manner of burning Lime in *China*.

in

in the middle of the pile, and of the Walks, which at last is covered with the Cinders of the burnt wood, and proves a most strong well burnt Lime; Which if it were mixt with *Holland Bricks* (called *Clinkart*, a yellow Brick as hard as Flint, bought for twenty three shillings the thousand) would make walls as durable as if of Marble, if not better.

The best
paying in
Stables.

Those *Clinkarts* are very fit for the paving of Stables, and walks in a Court, for they lye very smooth and close.

As for choice of Master Workmen.

King Henry the Eight shewed a good president (when the Serjeant Plummer calling

ling his Workmen to cast in his presence a Leaden Medal which was given him: the King told him he would have no walking Master Workman.

Those therefore which are fit to be imployed, are Working Masters, and not those who walk from one Building to another; since Journey-men will no more work well, then Souldiers fight without a fighting Captain; Feathers on a Captains hat, nor Compasses in Master workmens pockets do not the deed, nor will any Master Workman deny to have had as much more done, and well, by bestirring their Hands and Tools in their Workmens presence then other-ways.

This doth not entrench on those who are undertakers of Buildings, but insisteth onely on the

the necessity of sufficient Master Workmen, actually employed in every Work.

Master
Workmen
bound to a
precise
time.

The chosen Master Workmen must be bound to a precise time for the performance of their undertaking to observe exactly the Model and Moulds held forth to them by the chosen Surveyour, and to make good at their own cost what they do amiss.

Master
Workmen
to pay their
own men.

They are to manage the paying of their own Workmen, on such a Contract as they have made with the Proprietor of the Building; For the Master Workman must keep his workmen under a certain regular proportion of pay, to hinder them from spending their wages too fast, and to run to other works, as many (upon slight occasions) do.

To shun re-
prehending
of Master
Workmen
openly.

It is also very necessary to shun the reprehending a Master Work-

Workman of any oversight before his men, but rather privately; since it would be to him as prejudicial as a check to a Commander at the head of his Troop.

As for the Builder and Proprietor.

IT is best for the Builder to buy his own Materials, have his Work done by the Rod or Square.

Have in reserve (to make good payment) such a stock of his own as he can well spare; and against mistakes of Workmen a stock of Patience.

Be a constant observator of the three chief Principles of Building; viz. *Solidity, Convenience, and fit Ornament*: Never suffer

suffer his Workmen to begin to build before the Moneth of *March*; nor to continue longer in the building of walls then until half *ſeptember*; remitting ſetting of walls until the next Spring after.

Obſerve the ſeveral Annotations in the former printed *Diſcourſe*, on the three chief Principles of Building: concerning the well ordering both of Rooms of State and ordinary uſe and Stairs, the form of Offices and Stables; as alſo the contrivances and properties belonging to Gardens.

As for Prizes.

EXperience ſpeaks that as times change, and occasions differ, prizes may alter; Nor is that

that which is best cheap, always the best profit, but Merchantable ware.

Bricks in some parts are delivered at the Work for 16s. 8d. the thousand. Rates of Bricks.

Some will build a Rod 16 $\frac{1}{2}$ Foot square, 1 $\frac{1}{2}$ Bricks, all Materials comprised for 5 pound. Rate of Brick work.

For the old Tiling at thirteen shillings four pence a square.

New Tiling at one pound five shillings a square, finding all Materials.

The straight Arches, at one shilling per foot.

The Flints, at four pence per foot.

The Cornishes, one shilling per foot.

Slating with blew Slates the Workmen finding all, will cost seven pence per foot, the work-
man's ship

manship onely will coſt three pence per foot.

Twelve thoutſand Slates will make one ſquare.

Slates will coſt ſixteen pence per thouſand, delivered at London.

Prizes of
Timber.

Good Oaken Timber is bought in ſome parts of the Country for thirty three ſhillings per load, conſiſting of fifty foot; in and about London, for forty three ſhillings, forty four, forty five, forty ſeven, and fifty, at the Merchants Yard.

White Fur, twenty five, twenty ſix, twenty ſeven, and ſometimes twenty eight, according as the ſeaſons be.

Yellow Fur (called Dram) being very good, forty five ſhillings the load, the names are theſe following; Eſterrand, Weſtbecke, Langlound, Laurwat, Landiſor,

for, Tombserry, Holmstrand, Dram,
Christina, Swinsound, Frederick-
stadt, Helleroane, Moss, Drontom,
Bergen, and Stavenger.

The prizes of these Deals are
uncertain, for according to the
goodness so they are in price;
for in all these places, there are
both bad and good which gene-
rally are sold from four pound
per Cent. to six pound per Cent.
if ordinary length; long Deals
which are about fourteen or fif-
teen foot long, are from seven
pound per Cent. to twelve pound
per Cent.

An Estimate of Scantlings and Prizes.

OF Oaken Girders fifteen
inches one way, and eleven
F the

the other, two pound ten shillings.

Oaken Gerders thirteen Inches one way, and eleven the other, two pound two shillings.

Joyces seven Inches one way and three the other a square, two pound two shillings.

Firr Gerders fourteen Inches one way and nine the other, one pound eighteen shillings.

Firr Gerders twelve Inches one way and nine the other, Joyces six Inches one way and three the other at a square, one pound sixteen shillings.

Oak Roofing raising pieces, eight inches one way, six the other; Purloyns nine inches one way, and seven the other, one pound fifteen shillings.

Principal Rafters nine and six at one end, eight inches and five inches the other, small Rafters three

it is worth sixteen pence, or eighteen pence the yard.

Rough-cast upon Lath being very well done, is worth eighteen pence the yard, upon brick work it will be done very well for twelve pence or ten pence the yard.

Rough-cast upon Lath-work, the owner finding all, is worth eight pence the yard.

Upon Brick-work, or Stone, is worth six pence the yard.

To Lath and lay with Lime and Hair, the owner finding all the stuff, it will be done for two pence a yard.

Plastering upon Lath, ten pence a yard, some have done it for eight and nine pence the yard.

Plastering upon Brick-work at four pence a yard, and some for three pence a yard.

White

10 White-waſhing and ſtopping,
at three pence a yard.

Plaſtering of Lime upon
hart-lath is worth two pence
the yard, ſome have done it for
ſix pence a yard, and two pence
rendering with Coat of Lime
and Hair on it.

Greenwich plaſtering, to be
lathed and laid with Lime and
Hair, and a Coat of fine plaſter,
the Seilings and Partitionings
at one ſhilling two pence a yard,
in Town, one ſhilling five pence.

A Corniſh with two faces, all
of it two foot deep, at two
ſhillings ſix pence a yard, run-
ning meaſure; a Corniſh at the
foot of an Arch, ſealing done
with Lime and Hair, eleven in-
ches deep, at one ſhilling nine
pence the yard.

Architrave, Freeſe, and Cor-
niſh of three foot, three inches
deep,

deep, done for three shillings
two pence a yard, running Mea-
sure.

Plasterers work in Fret Seilings.

A Fret Seiling as at *Summer-*
set - house, in the Privy
Chamber, and in the Drawing
Chamber, done with square
Ovals round; with a Cornish
round about the roomes, the
Fret having a double golose in
the bottome, and a Cornish on
the side, six Inches deep, and
all the members enriched accor-
ding to the moulds therewith
measured flat in square yards
without girting the work with a
Line, is worth six shillings the
yard square.

Whiting and Stopping of fret
Seelings,

G

ſeelings at two pence a yard, whitening and ſtoping of old plain walls and ſeelings at one penny a yard, whitings of new walls at three pence farthing a ſquare.

The workmanſhip onely in Lath and Lathing three pence the yard, rendering two pence a yard.

A Friſe made with folding two foot deep, at five ſhillings a foot running meaſure.

Fret ſeelings the moulding, ſix Inches deep and full of work, with inrichments in the moulding and ſouldage in angles and ſquares, the workmanſhip only at five ſhillings a yard, meaſured flat.

One Tun of Playſter of *Paris* will lay twenty nine yards of Lath work, three quarters of an Inch thick, one Tun will lay as much again upon Brick-work.

Walls

Walls done in faire black for
a Tennis Court, at one penny a
yard, the workman finding all.

Glassery.

THe best French Glasse
wrought with good lead,
well simmoned, is worth six-
teen Pence a foot.

The best English glasse wrought
with an Arch well leaded, and
simmoned at seven pence a
foot.

Ordinary Glasse for quarries
at five pence half penny a foot.

Painters Work.

FOr a fair Stone colour in oyl
upon windowes and doores.
at twelve pence a yard.

For a Timber colour in oyl,
on doors and windows, at ten
pence a yard.

Wainscot put into Wall-nut
red colour, in distemper at six
pence a yard.

Painters work of ordinary
lights of windowes in oyl, at six
pence a yard.

To lay a fair white colour in
oyl, on Cornish of Timber, and
on Stairs, and Rails and Banisters
fourteen pence a yard.

The laying over a Wall
white in oyl, twelve pence a
yard.

Painting of the fairest green
that can be in distemper, and
varnisht, is one shilling a yard.

Frames seven Inches and a
half broad gilded, the ground
a Timber colour cost three pence
farthing for one Inch broad,
and a foot in length.

Other

Other rich carved frames, painted and gilded, the gold fifteen inches broad, the ground a fair white colour cost five shillings a foot.

Painting in white and gold, upon flat moulding, and set off with shading, like carving one inch board, and a foot long is worth four pence or five pence a foot.

Painting the outside of ordinary windows, is at three pence a light, and some at two pence a light.

Door case and doors at two shillings a piece, the outside onely.

Gilding for Workmanship of the gold, at twenty shillings a hundred.

Nota. The Painters are to colour over their windows thrice.

Smiths Work.

IRon Barrs, Hinges, Bolts, Staples, great Hooks, are worth three half pence the pound weight, Croſs Garners four or five pence the pound weight.

Iron Caſements about two foot high, three ſhillings ſix pence apiece, and others according to their bigneſs.

Concerning the Plummer.

EVery foot of New Lead ſquare, is worth thirteen or fourteen ſhillings the yard, beſides Souder at nine or ten pence the pound.

In exchange of old Lead for ſheets

Sheets new run, is allowed three shillings in every hundred weight for waste.

Every square foot of Lead run thin, to serve for gutters; weigheth commonly six or seven pound, if old eight or nine.

Leaden gutters are at twenty shillings the hundred.

The Masons Work.

FOR the Base called Gross-table, at the bottome of a building, seven pence *per* foot.

For an Architrave of eight inches to a Window, eight pence *per* foot.

For a Frieze to that Architrave six pence *per* foot.

For the Cornish (being about ten inches thick) one shilling two pence *per* foot.

For the Pilaster to the same Architrave, seven inches thick, six pence *per* foot.

For scrowls to the said windows, six shillings apiece.

For scrowls and leaves of second Story windows, six shillings *per* window.

For the Capitol, to the stools of those windows, twelve pence *per* foot.

For the quines, six pence *per* foot Ashler measure.

For Belconies with Rail and Barrister to the abovesaid windows, four pound *per* Belconie; being four foot high, and ten foot about.

For rail and barrister on the top of a building, nine shillings *per* yard.

For Architrave to doors, one shilling six pence *per* foot.

For cleansing and setting a gain

gain old work, as window stuff, grostable, watertable, cornish, quines, and Ashler, four pence per foot one with another.

For new cleansing an old front, and piecing the mouldings where it is broken, four pence per foot.

Paving of Portland stone, eight pence per foot.

White and black marble pavement a foot square, costs at London two shillings six pence laid.

To be carried and laid in the Country, three shillings six pence.

The Namur stone gray and white, the same price.

The Rans five shillings mixt with white.

The Rans and Purple six shillings.

The

The Prizes in Holland.

White Marble pavement the foot, three ſhillings; the black, eighteen pence.

The black and white, or red and white Marble poliſh'd, five ſhillings.

Black glazed *Holland* Pan-tiles, ſix pound the thouſand; ſometimes five pound, and four pound ten ſhillings.

Caſtle rough pavement, at three pence half penny the yard workmanſhip, with materials twelve pence, though the Pavors will exact ſixteen pence.

Pavement with Pibble-ſtone, fifteen and eighteen pence the the yard, ſquare.

Paving tiles ſix Inches, eight, ten, and twelve, from ſix ſhillings to twenty the hundred.

As

As for the paving of Courts, to prevent the over-growing of grass, and the charge of too often weeding. It would not be amiss to lay Chalk or Lime under the paving, and to do the same in Gardens under Gravel Walks.

This is onely a rate for the ordinary way of paving allowed by Act of Parliament, for which price, but very slight work hath been furnished; till such time as Mr. *Le Coeur* (having undertaken the Commissioners paving works) hath contrived such a plenty in stone, which hitherto was so scarce that by consequence he hath since rendred the work more plausible at the very same rate. But there is another way yet far more substantial, which the same under-

Undertakers, and Society have induſtriouſly invented, whereby they are not onely able to make a moſt ſubſtantial good pavement, but are likewise capable by that ſame certain new invention, to maintain it durable for twenty one years long, in reparation at a yearly ſmall rate, but muſt of neceſſity coſt them much more then ſixteen pence once, for all at the firſt paving.

If materials could be had at lower rates then the aforemen- tioned, it would be as well done to ſeek for ſuch materials, as to look to the goodneſs of them. So in the choice of Workmen for on thoſe who can work beſt.

To compleat theſe matters, I ſhall note what is moſt neceſſary.

First,

First, That what contributes more to the fatall ends of many good Mothers Son, is ill Building Paper like walls, Cobweb like windowes, doores made fast as with Pack thread, purposely to tempt men who through extream want are become weary of a languishing life, and to whose fatall end, ill Builders are in a manner accessary.

Let not the *Hollanders, German,* nor any other Northern Nation Vaunt of their scarcity of thieves (nor those of *Delf* in *Holland*; who when the Town Mason had desired them to chuse a day to visit the publick Gallows which he had made, said, that they would serve for them and their Posterity) but attribute the same scarcity to that defence they are wont to make against Theives; but that defence consists not in a super-

superfluous care of putting locks and bolts upon doores or wooden shutters to windows, not iron bars in them that will serve turn, except those locks, bolts, shutting windows, and barrs are made and set on as they ought to be.

The *Hollanders* wooden shutters are double deal-borded wainscot-like-framed within, with Battens, fluted without as the body of a Dorick Column; that the rain beating on them, may the better run down and carry away the dust which may be gathered on them, and that they may not rot so soon as they would, otherwise if they were garnished without with battens; they paint them also in strong oyl colour thrice over to resist the weather the better; the Carpenters do frame them so
exact

exact to the width and height of the stone casement of the window, as that scarce a knife could be thrust between them they are not hung with cross garnets ; because such are easily taken off, nor are the broad shoulders of an iron hook the onely thing that can hinder thieves to loosen such a window, nor the iron bars; Thieves having a way to remove iron bars without breaking of them, or making half so much noise as on a wooden bar.

The iron hinges ought to be framed between the two deal boards, whereof the shutting window is made, and the head of the hinge is to be so well fitted in the stone, as that no access can be had to it, the bolts within strait or crooked, must have a shutter at its tail.

Now

Now if a Builder will not be at the charge of such shutters without doores, they must then have wooden or iron bars to secure those within.

Doores may be secured, not onely by a wooden or iron barr, but by a strong chain hung at the one end in an iron ring, at the other end in a like ring, both united with a strong Padlock, then any Porter may open a gate or doore six Inches less or more to receive a Packet in the night when it so happens.

Nor do provident Builders rivet locks only at the one side, for that a thief within doores in correspondence with one without makes that single riveting of no use as to security; rivets to locks must be entlaced with rivets between the double board, nor should the key-hole of an out-ward

ward door of a house be left uncovered in the night, for if through the negligence of him that is the keeper of the gate, neither bolts nor barrs are remembered; Why? a pick-lock may soon open such a door or gate; it is an easie contrivance to have a bolt with a large head that shall cover the key-hole of a door or gate, to make fast from without to the inside, and so secure the lock; and if the key of that bolt is brought at night to the owner of the Palace, none can run out a gadding or drinking.

And so much may suffice for the securing of doors and windows, onely this more. That there ought to be an Iron plate of the width of the door, and four foot high, walled in withip, so fastned on both sides

as that no violence from without can make a breach, ſince in divers places Rogues have taken up the cauſey or pavement before a doore, and then with facility looſened the bricks under the threshold to make a paſſage into the Houſe.

But as for thieves who do untile houſes, ſuch may be kept out, if the ſeeling be boarded or made up with plates of tinn, or arched with brick as is practiſed in the Banks of *Loane*, which in other parts are erected for the relief of the Neceſſitous.

Furthermore, In reference to the main of the contents of a former Printed Diſcourſe, concerning the three firſt Principles of Magnificent Building; As the well chooſing of a fit place for a Building, is a Capital piont, to ſet it right, and the giving a fit extent

extent to the Court, so the making to it a Porch ought to be well considered, For as a Porch serves to a Hall to distribute Almes to the Poore; a porch proves often cumbersome, being the receptacle of foul creatures, who as soon gotten into a Court make it their randevouze; Nor is a porch so convenient to the Palace of a Prince, whose person must be attended by a great retinue, and no man to stand in his passage; But if a porch be affected, let it then be a vaste *Portuco*, as that of *Solomons* House was. and that he Built for *Pharaohs* Daughter.

Now as for the placing a Gate or Door to enter into the Hall of a Palace; None will deny but that Greatnesse and Conveniency being conjoynt fits best. The enterance into a Hall is not

ſo proper in the middle as at the end, when the ground plot is yet to chuſe and to be ordered; But if there be a constraint, which is moſt prejudicious to a Building, the entrance muſt be ſet as much towards the end as poſſible can be, to ſet the Chimney well, and the main Stair-caſe in ſo fit a place, as that it may not be ſubject to a like fatal accident as happened to *William* Prince of *Orange* at *Delf*, when he was ſhot by one who ſtood behind a Column, oppoſite to the Stairs of that Prince his houſe.

The riſe, width, and depth of ſteps, ſhall not need to be repeated, ſince they have been deſcribed, and reaſons alledged for their dimension, mentioned both in the former printed, and in this diſcourſe; nor ſhall repetitions be neceſſary concerning the

the reason why the first Floor of a building should not lye level with the ground; The first for health; the second for neatness, since any floor level with the ground receives more dirt from abroad; the third for greatness, which appears more by an ascent; the fourth for the Vaulting of Sellars or any other Offices; and the fifth, to have the floors more dry: Onely I shall insert this story of one in Authority, *Who passing by a Town wherein the people generally did not out-live the thirtieth year of their Age, caused all the back of their Houses to be made the Front, and the windows which were forward to be made up, to free them from that infectious Air that did shorten their Lives, which had its effect accordingly; and it is therefore I do so much insist on the*

point of placing a Building where good Aire is, & that neither chimnies nor doores may be so placed as to serve for the attracting of infectious Aire which kills more then the sword or the Seas overturnes ships.

To take my leave of all Builders, I must conclude with what followeth,

First that when they shall be pleased, to take a Posey out of the former Printed Discourse, and joyne it, to what may please them, out of this they will finde, that both hit the main-marke, to wit, *Solidity, Conveniency, and Ornament*, altogether to be observed in true Building. That all what is represented is for their profit and satisfaction, that the manner and phrase of the first discourse, was to that end intermixt with recreative passages, & the

the Reader should not be tired with the Mechanicks their phrase, and proper Names of their several Trades, though some of them are wont to scoff at those whose language is polished; as if a person of Eminent Quality, (Born to the Highest Concernment of a State) should have learned their words, and have spent therein part of his pretious time; And therefore I have now offered, to write, in such workman-like termes, as may serve for a Clark of the works to speak unto them.

Secondly, That all owners of Buildings, shall do well to make choice of such a person for their Clark as the Master workmen will endure, which they will not, if he be a Master workman, whom they will not only suspect to have a design to undermine

and supplant them, but obey not, pretending to know more themselves; Nor is it fit that there should be such a controuler over a Master Workman, as a Workman: The same is to be observed with a Surveyor to prevent all quarrels and contests: for as every Cook commends his own Sauce; more then one Cook to a dish will spoil it; there cannot be two Suns in the Firmament, one General over another; nay two Cocks among Hens.

In a word, an Owner must trust, or never make choice of Trustees; For if otherwise, let him be certain that his purse will be incessantly abused.

Thirdly, Let all Owners be prepared to *Repent*, whether they build or not, for it is likewise the fate of many that marry or marry not.

Let

Let both the one and the other lay (as in a Scale) their several charges, vexations, cares, labours, and pleasures, they will find this to be true, *viz.* If they build they must be at great present disbursements, vext with as many oversights (as Printer-Setters will commit faults, as appears by the *Erratae* at the end of Books) and to be over-reacht in Bargains concerning their Materials, as also in work done by the Great, or Day.

If they build not, they are subject to the inconveniencies of Houses built according unto the fancies of the Owners, and when they shall cast up the summs of money spent in the rent (besides many chargeable alterations) they shall find that they might have built a better and more fit habitation for them and their
post-

posterity; So will it be with men that marry or marry not.

The first will have had cause to exercise the Vertue of Patience, and if he be a *High German* (especially a Swab) such as have wives, that believe their husbands doth not love them, except they be beaten, Why? They will be practitioners in the mortification of their own flesh and bones; for let women say what they will, they are bone and flesh of man, and not the head, though some of them would wear the Bonnet and Breeches to boot; Well the Husband (after all his pains and vexations) if he can turn all things to the best, will have (as the *Italian* saith) a sound *gusto*, he will have observed the *French* saying, *Lie tes doits, a l'herbe que tu cognois*, and by a mixture of good bloud
(sprung

(sprung from a clear Spring) settle his name to posterity.

If he marry not, O how many dangerous encounters for him both in body and soul!

And how can such a one contest the Divine decree; That it is not good for man to be alone?

Paradise would have been but a Wilderness without a Woman; nor can Trees speak a word of comfort to a good man when stretched forth, in his cold bed, tired of the Labors of a dark Winters day; and let such a one, at the end of the year cast up his Bill, he will find to have spent more in Presents of consideration about another mans then his own; and if he be a Trades man, in Potting, Gadding, Codlings, Pudding-pies, and Bare-baiting, (with ranting Creatures) then if he had been married; therefore
if

if men must Repent, let them have for what that is called *meum* without offence for their Repentance.

Now if these two sorts of men, the one will resolve on the affirmative, delight to spend money on choice Materials, as in particular to imitate *Solomon*, in the procuring of precious Wood; they may take notice (if they please) that store of precious Wood can be had for the boarding of Princely Palaces, both for Colour, Aromatick smell and durance; to make square framed Pannels (more rich then those which are seen at *Paris* in the Cabinets of the Palace called *Orleans*) which precious Woods are to be had in several parts in the *West-Indies*, some whereof are as red as the fairest *Vermilion*, some yellow as Gold, hard as Marble;

Marble; besides rare *Madera*, and other variously figured, as the Right Honourable the Lord *Wilmington* of *Param* well knoweth, what extent of Land about *Surrenam* is beset with speckled wood, and is not above six weeks sail from *England*, where ships full of lading may be had, besides large Timber, eighty foot high, At Abacoas freight, without a knot, and at no other cost but felling and lading, more advantagious then to pay for *Firr* from *Narway*; besides a very gainful return of *Amber Greece*, and vendible commodities in exchange of Iron Tools, Sissers, Knives, old Linnen, and trifles.

To conclude, *May* all Builders both of Palaces and of particular Habitations, have good success and, possess them in peace and prosperity.
May

May also all Surveyors, Master Workmen, Journeymen and Labourers, behave themselves so as they ought.

Take well this former Counsel and Advice, give no admittance to Pride, the Enemy of all Learning; whereof a King was such a Lover, as that when near the hour of his leaving the World, he saw one advanc'd more then others to him within the Curtain of his Bed, he askt, Whether he could learn him any thing that was good.

FINIS.



THere is sold by Thomas Heath at
the Globe within Ludgate, a Short-
hand Book, more easie and plain then
hath yet been extant, and all sorts of Al-
manacks and Blank Bonds, Bills, Relea-
ses, Counter bonds, and Indentures, with
Bills of Lading, and Scriveners Labels,
either pasted or unpasted, with Boards or
in Sheets; you may also have any sort of
Texting done there at his shop, either on
Parchment or Dutch Paper, Recoveries
or exemplifications; as also direction for
true attaining the Art of Short-Writing,
very beneficial to Clerks, or Attornies,
with several other Instructions in Scien-
ces.



The First and Second PART
OF
1043. 2/2
COUNSEL and ADVICE
TO ALL
BUILDERS:
FOR

The choice of their SURVEYORS,
Clerks of their Works, Bricklayers,
Masons, Carpenters, and other
Workmen therein concerned.

AS ALSO

In respect of their Works, Materials,
and Rates thereof.

Written by Sr. *Balthazar Gerbier*, Knight.

L O N D O N,

Printed by *Tho. Mabb*, for *Tho. Heath* at the
Globe within Ludgate, 1664.

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Pri

A Brief
DISCOURSE

Concerning the
Three chief Principles
OF
Magnificent Building.

Viz.

[Solidity,
	Conveniency,
	and
	Ornament.

By *Sr. Balthazar Gerbier, Knight.*

L O N D O N,
Printed by *Tho. Mabb*, for *Tho. Heath* at the
Globe within Ludgate, 1664.



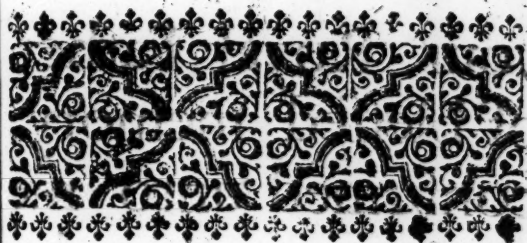
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TO THE
K I N G S
M O S T

Excellent Majesty.

May it please y^{or} Sacred Majesty:

MY place of Ma-
ster of the
Ceremonies

(which the King
A 2 your

if the moneth of *October* draweth on, when it's fit Trovel men should be dismist till the next Spring following.

Item, To cause the foundation of the intended building to be generally laid, without leaving any touchings, since walls new begun on them will settle more unequal then those carried on in an intire range: As for coverings of Buildings, Lead is best for Churches, for who would rob them but *Goths* and *Vandals*.

The best
Covering.

Concerning
blew Slates.

Blew Slates are most comely for a Noblemans Palace, they are not heavy as Tiles, nor do not soon rot, nor gather an unpleasing moss; besides that when some of the slates are broke, the Slater mends them with little charge; a rooff coloured with them is of an equall colour when

when as red tiled rooffs the least breaking of them makes great chargeable work for the Tiler, who often removes ten Tiles to lay two new ones in their place; and renders the Noble mans roof, as a Beggers Coat.

As for burning of Bricks, if Concerning burning of Bricks. Noblemen care not to make a Bisme in their Parks or grounds, they shall do well to cause the Clerk of the Works to look well to the Workers of the Clay, for if it be not well wrought, the bricks will never be good.

It is usual to pay five shillings per thousand, for the making and burning of Bricks, the Clay digging therein comprehended; and all materials being provided to the Brick-makers hand.

But as for those who can have

E 2

Bricks

Between
burning &
buying of
Bricks, but
ſix ſhillings
and eight
pence difference in
twenty
thouſand.

Bricks from Brickills near at hand. And who love to keep their Park and grounds even and handſome, they may take notice that in the number of twenty Thouſand of Bricks bought or made, there is not above ſix ſhillings and eight pence difference; *Example*, There goeth four load of Sand, which (with the carriage) coſt two ſhillings ſix pence; in Straw to the making of twenty Thouſand of Bricks above five ſhillings; the Tools and bringing of water five ſhillings, the digging of the Clay ten ſhillings, charges for hedging, forty ſhillings; the preparing of the ground five ſhillings, beſides the making of a Kill, which will conſume for the making of twenty Thouſand of Bricks, fifteen load of Wood, at ten ſhillings the load; of
Bricks

Bricks burnt in a Clam (being burnt with Sea coals) there are at the least intwenty thousand, five thousand unfit for work ; and though some Bricklayers pretend that Sammel Bricks are good enough to fill the Choare of a Wall, it is not so; Since most Sammel Bricks are no better then dust, and what resistance dust can be when weight is laid upon it, any rational man can judge by the several cracks in Walls, whereof the Choars are hollow; and therefore the description of the foundations of the Temple, and the Palace of *Solomon* bears, that it was made with smooth hard Stone.

The foundation of the Temple and Palace of *Solomon*.

Many Brick-makers are accustomed to dig the top spit (which is no better then dung) and to throw it with the other

E 3

clay

An Item for
those who
do let out
ground for
buildings.

clay, and is the cause that many Bricks are brittle, so as in few years houses made with them, the walls thereof moulder away like dirt.

To prevent the being over-reacht with Bricks, they ought to be taken out of the clam by account from the Brickmaker, who undertakes to make them in ones ground, he is to keep to himself those that are not fit for use.

How to
measure the
Clay which
hath been
digged.

The way for the Clerk of the Works to measure the quantity of Clay which hath been digged, is to measure the pit (out of which it hath been taken) square, which is six foot square, six foot in length, three foot in breadth, and three foot in depth, which makes one thousand of Bricks.

Men dig clay for six pence the thousand.

Lime

Lime digged in ones ground iscommonly burnt in a Kill, at four shillings *per* load; Lime bought cost four shillings a quarter, six pence a Bushel, forty shillings a load.

Those that mind the making use of Chalk in their walls, must be contented (if the ground hath springs) with the green molding which breaks through the whited walls within doors.

Inconveniency of putting Chalk in walls of Houses on Springish ground.

Walls about a Park or Court, may be filled with Chalk, which may be digged for eighteen pence *per* load, bought for two shillings and six pence the load.

He that desires to know how many thousands of Brick a Park wall, or that of the building of a house will require, can make his account on the description following, *viz.* A square Rod of a wall, two foot thick

The number of Bricks in a square Rod.

E 4 takes

takes nine thousand of Bricks, nine quarters of Lime to a Rod, nine load of Sand, at fourteen pence per load.

Some good Country Bricklayers do work at twenty seven ſhillings the Rod, the Bricks not being rubbed.

The rate of
Bricklayers
work.

Good *London* Bricklayers will work the Rod for forty ſhillings, rubbed Bricks, the inſide for thirty three ſhillings, arches comprised.

The fitteſt bigness of a good brick, is nine inches and a half long, four and a half, and a half quarter broad, two inches a quarter and a half thick, which will raise a foot in the Morter with four bricks.

As for Lime, the refining whereof (according unto the *Grecian* and *Roman* manner, is mentioned in the former printed

ted discourse of the three Principles of Magnificent Building) the general custome in *Europe*, is to burn it in *Kills*, which is a slow way. But if there were such a quantity of Wood as in the *Indies*, there could be more lime burnt in twenty four hours, then otherwayes in a moneth: The burning of lime in *China* and other parts of the *Indies*, being as followeth, viz. They make a round pile of great wood, leaving a cross hollow way through it from the bottom almost to the top, which is raised to a height according to the Circle, there is proportionably so much Stone heaved thereon as it will hold, the fire is put in the Centre, and in the middle of every cross way, and as it burns makes an Over-ture at the top, and the stone burning by degrees falls still in

The manner of burning Lime in *China*.

in the middle of the pile, and of the Walks, which at laſt is covered with the Cinders of the burnt wood, and proves a moſt ſtrong well burnt Lime; Which if it were mixt with *Holland Bricks* (called *Clinkart*, a yellow Brick as hard as Flint, bought for twenty three ſhillings the thouſand) would make walls as durable as if of Marble, if not better.

The beſt
paying in
Stables.

Thoſe *Clinkarts* are very fit for the paving of Stables, and walks in a Court, for they lye very ſmooth and cloſe.

As for choice of Maſter Workmen.

King Henry the Eight ſhewed a good preſident (when the Serjeant Plummer calling

ling his Workmen to cast in his presence a Leaden Medal which was given him : the King told him he would have no walking Master Workman.

Those therefore which are fit to be imployed , are Working Masters, and not those who walk from one Building to another ; since Journey-men will no more work well, then Souldiers fight without a fighting Captains Feathers on a Captains hat, nor Compasses in Master workmens pockets do not the deed, nor will any Master Workman deny to have had as much more done, and well, by bestirring their Hands and Tools in their Workmens presence then other-ways.

This doth not entrench on those who are undertakers of Buildings, but insisteth onely on the
the

the necessity of sufficient Master Workmen, actually employed in every Work.

Master
Workmen
bound to a
precise
time.

The chosen Master Workmen must be bound to a prefixt time for the performance of their undertaking to observe exactly the Model and Moulds held forth to them by the chosen Surveyour, and to make good at their own cost what they do amiss.

Master
Workmen
to pay their
own men.

They are to manage the paying of their own Workmen, on such a Contract as they have made with the Proprietor of the Building; For the Master Workman must keep his workmen under a certain regular proportion of pay, to hinder them from spending their wages too fast, and to run to other works, as many (upon slight occasions) do.

To shun re-
prehending
of Master
Workmen
openly.

It is also very necessary to shun the reprehending a Master Work-

Workman of any oversight before his men, but rather privately; since it would be to him as prejudicial as a check to a Commander at the head of his Troop.

As for the Builder and Proprietor.

IT is best for the Builder to buy his own Materials, have his Work done by the Rod or Square.

Have in reserve (to make good payment) such a stock of his own as he can well spare; and against mistakes of Workmen a stock of Patience.

Be a constant observator of the three chief Principles of Building; *viz. Solidity, Convenience, and fit Ornament*: Never suffer

suffer his Workmen to begin to build before the Moneth of *March*, nor to continue longer in the building of walls then until half *September*; remitting setting of walls until the next Spring after.

Observe the several Annotations in the former printed *Discourse*, on the three chief Principles of Building: concerning the well ordering both of Rooms of State and ordinary use and Stairs, the form of Offices and Stables; as also the contrivances and properties belonging to Gardens.

As for Prizes.

EXperience speaks that as times change, and occasions differ, prizes may alter; Nor is that

that which is best cheap, always the best profit, but Merchantable ware.

Bricks in some parts are delivered at the Work for 16s. 8d. the thousand. Rates of Bricks.

Some will build a Rod 16 $\frac{1}{2}$ Foot square, 1 $\frac{1}{2}$ Bricks, all Materials comprised for 5 pound. Rate of Brick work.

For the old Tiling at thirteen shillings four pence a square.

New Tiling at one pound five shillings a square, finding all Materials.

The straight Arches, at one shilling per foot.

The Flints, at four pence per foot.

The Cornishes, one shilling per foot.

Slating with blew Slates the Workmen finding all, will cost seven pence per foot, the workmanship

manſhip onely will coſt three pence per foot.

Twelve thouſand Slates will make one ſquare.

Slates will coſt ſixteen pence per thouſand, delivered at London.

Prizes of
Timber.

Good Oaken Timber is bought in ſome parts of the Country for thirty three ſhillings per load, conſiſting of fifty foot; in and about London for forty three ſhillings, forty four, forty five, forty ſeven, and fifty, at the Merchants Yard.

White Fur, twenty five, twenty ſix, twenty ſeven, and ſometimes twenty eight, according as the ſeaſons be.

Yellow Fur (called Dram) being very good, forty five ſhillings the load, the names are theſe following; Eſterrund, Weſt-beele, Longlound, Laurwat, Landi-for,

for, Tonsberry, Holmstrand, Dram, Christina, Swinsound, Frederickstadt, Helleroane, Moss, Drontom, Bergen, and Stavenger.

The prizes of these Deals are uncertain, for according to the goodness so they are in price; for in all these places, there are both bad and good which generally are sold from four pound *per Cent.* to six pound *per Cent.* if ordinary length; long Deals which are about fourteen or fifteen foot long, are from seven pound *per Cent.* to twelve pound *per Cent.*

An Estimate of Scantlings and Prizes.

OF Oaken Gerders fifteen
inches one way, and eleven
F the

the other, two pound ten ſhillings.

Oaken Gerders thirteen Inches one way, and eleven the other, two pound two ſhillings.

Joyces ſeven Inches one way and three the other a ſquare, two pound two ſhillings.

Firr Gerders fourteen Inches one way and nine the other, one pound eighteen ſhillings.

Firr Gerders twelve Inches one way and nine the other, Joyces ſix Inches one way and three the other at a ſquare, one pound ſixteen ſhillings.

Oak Roofing raiſing pieces, eight inches one way, ſix the other; Purloyns nine inches one way, and ſeven the other, one pound fifteen ſhillings.

Principal Raſters nine and ſix at one end, eight inches and five inches the other, ſmall Raſters
three

three inches and four inches at a square, *ibid.*

Of the same Scantlings of Firr at one pound nine shillings.

Oaken Carcass, ground plates nine inches one way, seven inches the other; Story posts backwards nine inches one way and six inches the other, prickt posts. Interdices and Braces seven inches and five inches, quarters two and four, the other second Story posts eight inches one way and six the other, prick post seven inches one way, five the other; interdices and braces six inches one way, and four inches; third and half Story posts to be seven inches one way, five the other, interdices or braces five one way, and four the other, quarters two and three at a square,

square, one pound fifteen shillings.

The same Scantlings of firr, one pound nine shillings.

Partitions at a square, eighteen shillings.

Seiling Joyces on Cellaring, ten shillings.

Oaken Windows with a double Rabet and with an edge on the one side as a light, three shillings six pence.

Ivory doors glued and Battened at nine shillings.

Joyners Work.

FOR Columns all under twelve inches, at six pence an inch, upon the Diameter of the Column.

From twelve to fifteen inches at nine pence an inch, upon the Diameter

Diameter of the Column.

From fifteen to eighteen inches at twelve pence an inch, upon the Diameter of the Column.

All Barristers at one penny an inch upon the Diameter of the Barrister.

If the Barristers be two inches over, it is two shillings a dozen.

Three inches over, is three shillings *per* dozen, and so to six shillings a dozen.

Heads and Pendills four inches Diameter, at four pence a head, six inches Diameter, six pence a head.

Balls twelve inches Diameter, at two shillings six pence a piece.

Balls eighteen inches Diameter, at three shillings a piece.

This work hath been done cheaper by some which do not

very well understand the Trade.

Item, Manger, Rack, and Planking of a Stable is eight shillings *per* foot in length, the ordinary, five shillings.

Carvers Work.

THe upper work cut with leaves at six pence *per* foot.

The wave with Lace under it, at one penny *per* foot.

Small Beads with round ones and long ones at one penny, and half penny a foot, the edges and anckers at four pence *per* foot, the lower Wave with leaves, at four pence the foot.

The round Freese eight inches deep cut with leaves at one shilling eight pence *per* foot.

The Wave on the Architrave cut with leaves, at seven pence *per*

per foot; Beades in the Fasfa,
cut at round, at two pence a
foot.

The single gallace five inches
and half broad, twelve pence
per foot.

The upper Wave cut with
Leaves, at six pence *per foot.*

Great Beads round and long
together, two pence half penny
per foot, the edges and anckers
at four pence *per foot.*

The Dentiles at three pence
per foot, the lower leaves with
flowers, at four pence *per foot.*

The Freese six inches and half
deep, and cut with Capitals, at
nine pence the foot.

Flowers for the Crofs work in
the gallace in these quains, a foot
over, and seven inches deep, cut
with Leaves and Beads, at eight
shillings *per piece* the workman-
ship onely.

The Capitals of the Pillars for the Stairs coming out of the Lodgings into S. James's Park, cost twelve shillings per piece the Carving.

The Cartoeses of the flat form cost two shillings six pence a piece.

Concerning a Rooff.

A Rooff being forty foot long and twenty foot wide, the principal Rafter ten and seven inches, Purloyns the same, Plates the same, small Rafter four and five inches, will take six Load twenty six foot of Timber; one square thereof will be twenty seven foot.

A Roof being as abovesaid in length, and with the principal Rafter being eight & six inches, the

the Purloyns the same, the Plates the same, the small Rafter, four and three inches; the Coller beams eight and three inches, ten foot long, will spend four load twenty eight foot of Timber, one square nineteen foot.

A Roof being as abovesaid, the principal Rafter being seven and five inches, the Plates the same, the Purloyns the same; Small Rafter four inches and three inches, the Coller beams seven and three inches, ten foot long, will require three Loads twenty four foot of Timber, one square fourteen and a half foot of Timber.

A Roof being as abovesaid, the principal Rafter six and four inches, the Purloyns the same, the Plates the same; small Rafter three inches, Coller beams

beams seven and three inches, ten foot long, will be two loads and a half of Timber; one square is ten foot and three quarters of Timber.

Partitions.

THe principal Timber six and seven inches, quarters four and two, one square will be twenty foot and an half of Timber with door posts.

The principal Timber five and six inches, quarters four and two, will be nineteen foot and a half of Timber.

The principal Timber five and four inches, quarters four and two, one square will be thirteen foot of Timber.

The principal Timber four and three inches, quarter three and

and two, one square will be ten
foot of Timber.

Floors.

A Floor being forty foot
long, twenty foot wide, the
Summers fourteen and twelve
inches, the Joyces three and
twelve inches, will be five load
of Timber; one square is thirty
one foot and a half of Timber.

A Floor as abovesaid, Sum-
mer thirteen and eleven inches,
Joyce three and eleven inches;
one square will be thirty foot
of Timber.

A Floor as abovesaid, Sum-
mer ten and twelve inches, Joy-
ces three and ten inches; one
square will be twenty nine foot
of Timber.

A Floor as abovesaid, Sum-
mers

mers eleven and nine inches, Joyces three and nine inches; one ſquare will be twenty five foot of Timber.

A Floor as aboveſaid, Summers eight and nine inches, Joyces ſix and three inches; one ſquare will be fifteen and a half foot of Timber.

Architrave door caſes, the Poſt eight foot high, four foot wide, the Poſt being nine and ſeven inches, is twelve foot of Timber.

Architrave door caſes, the Poſt ſeven foot high, three foot and a half wide, the Poſt being nine and ſeven inches, is twelve foot of Timber.

Architrave door caſes, the Poſt ſeven foot high, three foot wide, the Poſt being ſix and ſeven inches head and ſoyle, the

the same is seven foot of Timber.

Architrave door cases, the Post seven foot high, three foot wide, the Post being six and five inches head and soyle, the same is five foot of Timber.

These particulars are to be understood, as if the building were to be measured after it is framed.

So that this is no just rule for the quantity of Timber, by reason there is a great deal of waste in the sawing, and bringing of the Timber to a square but the larger the Timber, the less waste there will be; and the nearer to these proportions.

In this work, there must be an allowance for the waste of the Timber, for the benefit of the Carpenter, in case the Timber

ber be his, if not, to the Proprietor of the building.

Girt measure of Timber is the best for the buyer, because there is more in the circular measure than in the square; this is used in the Country, in London not, the Timber being squared before it be brought to London.

The Plaisterers Work.

ONE hundred of Lathes will cover six yards of Seiling; and lathing is worth six pence the yard, one hundred of Lime will lay ten or twelve hundred of Laths.

Plaister of *Paris*, the Workman finding all, is worth one shilling a yard, upon brick work

it is worth sixteen pence, or
eighteen pence the yard.

Rough-cast upon Lath being
very well done, is worth eigh-
teen pence the yard, upon brick
work it will be done very well
for twelve pence or ten pence
the yard.

Rough-cast upon Lath-work,
the owner finding all, is worth
eight pence the yard.

Upon Brick-work, or Stone,
is worth six pence the yard.

To Lath and lay with Lime
and Hair, the owner finding all
the stuff, it will be done for two
pence a yard.

Plastering upon Lath, ten
pence a yard, some have done it
for eight and nine pence the
yard.

Plastering upon Brick-work
at four pence a yard, and some
for three pence a yard.

White

White-washing and stopping
at three pence a yard.

Plastering of Lime upon
hart-lath is worth two pence
the yard, some have done it for
six pence a yard, and two pence
rendering with Coat of Lime
and Hair on it.

Greenwich plastering, to be
lathed and laid with Lime and
Hair, and a Coat of fine plaster,
the seilings and Partitionings
at one shilling two pence a yard,
in Town, one shilling five pence.

A Cornish with two faces, all
of it two foot deep, at two
shillings six pence a yard, run-
ning measure; a Cornish at the
foot of an Arch, sealing done
with Lime and Hair, eleven in-
ches deep, at one shilling nine
pence the yard.

Architrave, Freeze, and Cor-
nish of three foot, three inches
deep,

deep, done for three shillings two pence a yard, running Measure.

Plasterers work in Fret Seilings.

A Fret Seiling as at *Summer* set - house, in the Privy Chamber, and in the Drawing Chamber, done with square Ovalls round; with a Cornish round about the roomes, the Fret having a double golose in the bottome, and a Cornish on the side, six Inches deep, and all the members enriched according to the moulds therewith measured flat in square yards without girting the work with a Line, is worth six shillings the yard square.

Whiting and Stopping of fret
G Seelings,

feelings at two pence a yard ,
whiting and ſtoping of old plain
walls and feelings at one penny
a yard , whittings of new walls
at three pence farthing a ſquare.

The workmanſhip onely in
Lath and Lathing three pence
the yard, rendering two pence a
yard.

A Frieſe made with folding
two foot deep, at five ſhillings
a foot running meaſure.

Fret feelings the moulding,
ſix Inches deep and full of work,
with enrichments in the mould-
ing and fouldage in angles and
ſquares, the workmanſhip only
at five ſhillings a yard, meaſured
flat.

One Tun of Playſter of *Paris*
will lay twenty nine yards of
Lath work, three quarters of an
Inch thick, one Tun will lay as
much again upon Brick-work.

Walls

Walls done in faire black for
a Tennis Court, at one penny a
yard, the workman finding all.

Glassery.

THe best French Glasse
wrought with good lead,
well simmoned, is worth six-
teen Pence a foot.

The best English glafs wrought
with an Arch well leaded, and
simmoned at seven pence a
foot.

Ordinary Glafs for quarries
at five pence half penny a foot.

Painters Work.

FOr a fair Stone colour in oyl
upon windowes and doores.
at twelve pence a yard.

For a Timber colour in oyl, on doors and windows, at ten pence a yard.

Wainscot put into Wall-nut red colour, in diſtemper at ſix pence a yard.

Painters work of ordinary lights of windowes in oyl, at ſix pence a yard.

To lay a fair white colour in oyl, on Corniſh of Timber, and on Stairs, and Rails and Barristers fourteen pence a yard.

The laying over a Wall white in oyl, twelve pence a yard.

Painting of the faireſt green that can be in diſtemper, and varniſht, is one ſhilling a yard.

Frames ſeven Inches and a half broad gilded, the ground a Timber colour coſt three pence farthing for one Inch broad, and a foot in length.

Other

Other rich carved frames, painted and gilded, the gold fifteen inches broad, the ground a fair white colour cost five shillings a foot.

Painting in white and gold, upon flat moulding, and set off with shading, like carving one inch board, and a foot long is worth four pence or five pence a foot.

Painting the outside of ordinary windows, is at three pence a light, and some at two pence a light.

Door case and doors at two shillings apiece, the outside onely.

Gilding, for Workmanship of the gold, at twenty shillings a hundred.

Nota, The Painters are to colour over their windows thrice.

Smiths Work.

IRon Barrs, Hinges, Bolts, Staples, great Hooks, are worth three half pence the pound weight, Croſs Garners four or five pence the pound weight.

Iron Caſements about two foot high, three ſhillings ſix pence apiece, and others according to their bigneſs.

Concerning the Plummer.

EVery foot of New Lead ſquare, is worth thirteen or fourteen ſhillings the yard, beſides Souder at nine or ten pence the pound.

In exchange of old Lead for ſheets

Sheets new run, is allowed three shillings in every hundred weight for waste.

Every square foot of Lead run thin, to serve for gutters; weigheth commonly six or seven pound, if old eight or nine.

Leaden gutters are at twenty shillings the hundred.

The Masons Work.

FOR the Base called Gross table, at the bottome of a building, seven pence *per* foot.

For an Architrave of eight inches to a Window, eight pence *per* foot.

For a Frieze to that Architrave six pence *per* foot.

For the Cornish (being about ten inches thick) one shilling two pence *per* foot.

G 4

For

For the Pilaster to the ſame Architrave, ſeven inches thick, ſix pence *per* foot.

For ſcrowls to the ſaid windows, ſix ſhillings a piece.

For ſcrowls and leaves of ſecond Story windows, ſix ſhillings *per* window.

For the Capitol, to the ſtools of thoſe windows, twelve pence *per* foot.

For the quines, ſix pence *per* foot Aſhler meaſure.

For Belconies with Rail and Barrister to the abovesaid windows, four pound *per* Belconie; being four foot high, and ten foot about.

For rail and barrister on the top of a building, nine ſhillings *per* yard.

For Architrave to doors, one ſhilling ſix pence *per* foot.

For cleaning and ſetting again

gain old work, as window stuff, grostable, watertable, cornish, quines, and Ashler, four pence per foot one with another.

For new cleansing an old front, and piecing the mouldings where it is broken, four pence per foot.

Paving of *Portland* stone, eight pence per foot.

White and black marble pavement a foot square, costs at *London* two shillings six pence laid.

To be carried and laid in the Country, three shillings six pence.

The *Namur* stone gray and white, the same price.

The *Rans* five shillings mixt with white.

The *Rans* and *Purple* six shillings.

The

The Prizes in Holland.

White Marble pavement the foot, three ſhillings; the black, eighteen pence.

The black and white, or red and white Marble poliſh'd, five ſhillings.

Black glazed *Holland* Pan-tiles, fix pound the thouſand; ſometimes five pound, and four pound ten ſhillings.

Caſhie rough pavement, at three pence half penny the yard workmanſhip, with materials twelve pence, though the Pavors will exact ſixteen pence.

Pavement with Pibble-ſtone, fifteen and eighteen pence the the yard, ſquare.

Paving tiles fix Inches, eight, ten, and twelve, from fix ſhillings to twenty the hundred.

As

As for the paving of Courts, to prevent the over-growing of grass, and the charge of too often weeding. It would not be amiss to lay Chalk or Lime under the paving, and to do the same in Gardens under Gravel Walks.

This is onely a rate for the ordinary way of paving allowed by Act of Parliament, for which price, but very slight work hath been furnished; till such time as Mr. *Le Coeur* (having undertaken the Commissioners paving works) hath contrived such a plenty in stone, which hitherto was so scarce that by consequence he hath since rendred the work more plausible at the very same rate. But there is another way yet far more substantial, which the same under-

Undertakers, and Society have industriously invented, whereby they are not onely able to make a most substantial good pavement, but are likewise capable by that same certain new invention, to maintain it durable for twenty one years long, in reparation at a yearly small rate, but must of necessity cost them much more then sixteen pence once, for all at the first paving.

If materials could be had at lower rates then the aforementioned, it would be as well done to seek for such materials, as to look to the goodness of them. So in the choice of Workmen for on those who can work best.

To compleat these matters, I shall note what is most necessary.

First,

First, That what contributes more to the fatall ends of many good Mothers Son, is ill Building Paper like walls, Cobweb-like windowes, doores made fast as with Pack-thread, purposely to tempt men who through extrem want are become weary of a languishing life, and to whose fatall end, ill Builders are in a manner accessary.

Let not the *Hollanders, German,* nor any other Northern Nation Vaunt of their scarcity of thieves (nor those of *Delf* in *Holland;* who when the Town Mason had desired them to chuse a day to visit the publick Gallows which he had made, said, that they would serve for them and their Posterity) but attribute the same scarcity to that defence they are wont to make against Theives; but that defence consists not in a
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superfluous care of putting locks and bolts upon doores or wooden shutters to windows, not iron bars in them that will serve turn, except those locks, bolts, shutting windows, and barrs are made and set on as they ought to be.

The *Hollanders* wooden shutters are double deal-borded wainscot-like-framed within with Battens, fluted without as the body of a Dorick Column; that the rain beating on them, may the better run down and carry away the dust which may be gathered on them, and that they may not rot so soon as they would, otherwise if they were garnished without with battens; they paint them also in strong oyl colour thrice over to resist the weather the better; the Carpenters do frame them so

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exact to the width and height of the stone casement of the window, as that scarce a knife could be thrust between them they are not hung with cross garnets; because such are easily taken off, nor are the broad shoulders of an iron hook the onely thing that can hinder theeves to loosen such a window, nor the iron bars; Theeves having a way to remove iron bars without breaking of them, or making half so much noise as on a wooden bar.

The iron hinges ought to be framed between the two deal bords, whereof the shutting window is made, and the head of the hinge is to be so well fitted in the stone, as that no access can be had to it, the bolts within strait or crooked, must have a shutter at its tail.

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Now if a Builder will not be at the charge of ſuch ſhutters without doores, they muſt then have wooden or iron bars to ſecure thoſe within.

Doores may be ſecured, not onely by a wooden or iron barr, but by a ſtrong chain hung at the one end in an iron ring, at the other end in a like ring, both united with a ſtrong Padlock, then any Porter may open a gate or doore fix Inches leſs or more to receive a Packet in the night when it ſo happens.

Nor do provident Builders rivet locks only at the one ſide, for that a thief within doores in correſpondence with one without makes that ſingle riveting of no uſe as to ſecurity; rivets to locks muſt be enterlaced with rivets between the double bord, nor ſhould the key-hole of an out-ward

ward door of a house be left uncovered in the night, for if through the negligence of him that is the keeper of the gate, neither bolts nor barrs are remembered ; Why? a pick-lock may soon open such a door or gate ; it is an easie contrivance to have a bolt with a large head that shall cover the key-hole of a door or gate, to make fast from without to the inside, and so secure the lock ; and if the key of that bolt is brought at night to the owner of the Palace, none can run out a gadding or drinking.

And so much may suffice for the securing of doors and windows, onely this more. That there ought to be an Iron plate of the width of the door, and four foot high, walled in within, so fastned on both sides

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as that no violence from without can make a breach, since in divers places Rogues have taken up the causey or pavement before a doore, and then with facility loosened the bricks under the threshold to make a passage into the House.

But as for thieves who do untile houses, such may be kept out, if the feeling be boarded or made up with plates of tinn, or arched with brick as is practised in the Banks of *Loane*, which in other parts are erected for the relief of the Neecessitous.

Furthermore, In reference to the main of the contents of a former Printed Discourse, concerning the three first Principles of Magnificent Building; As the well choosing of a fit place for a Building, is a Capital piont, to set it right, and the giving a fit extent

extent to the Court, so the making to it a Porch ought to be well considered, For as a Porch serves to a Hall to distribute Almes to the Poore; a porch proves often cumbersome, being the receptacle of foul creatures, who as soon gotten into a Court make it their randevouze; Nor is a porch so convenient to the Palace of a Prince, whose person must be attended by a great retinue, and no man to stand in his passage; But if a porch be affected, let it then be a vaste *Portuico*, as that of *Solomons* House was. and that he Built for *Pharaohs* Daughter.

Now as for the placing a Gate or Door to enter into the Hall of a Palace; None will deny but that Greatnesse and Convenience being conjoynt fits best. The enterance into a Hall is not

ſo proper in the middle as at the end, when the ground plot is yet to chuſe and to be ordered; But if there be a constraint, which is moſt prejudicious to a Building, the entrance muſt be ſet as much towards the end as poſſible can be, to ſet the Chimney well, and the main Stair-caſe in ſo fit a place, as that it may not be ſubject to a like fatal accident as happened to *William* Prince of *Orange* at *Delf*, when he was ſhot by one who ſtood behind a Column, oppoſite to the Stairs of that Prince his houſe.

The riſe, width, and depth of ſteps, ſhall not need to be repeated, ſince they have been deſcribed, and reaſons alledged for their dimension, mentioned both in the former printed, and in this diſcourſe; nor ſhall repetitions be neceſſary concerning the

the reason why the first Floor of a building should not lye level with the ground; The first for health; the second for neatness, since any floor level with the ground receives more dirt from abroad; the third for greatness, which appears more by an ascent; the fourth for the Vaulting of Sellars or any other Offices; and the fifth, to have the floors more dry: Onely I shall insert this story of one in Authority, *Who passing by a Town wherein the people generally did not out-live the thirtieth year of their Age, caused all the back of their Houses to be made the Front, and the windows which were forward to be made up, to free them from that infectious Air that did shorten their Lives, which had its effect accordingly; and it is therefore I do so much insist on the*